

US EPA ARCHIVE DOCUMENT

# **8<sup>th</sup> Semi-Annual Report: The Early Action Compact for the San Antonio Region**

**December 2006**

**Prepared by the Alamo Area Council of Governments**

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| <b>Abstract:</b><br><p>Protocol for the Early Action Compact (EAC) stipulates that areas participating in the compact will assess and report their progress against milestones every six months. This report contains the progress made towards the required milestones for the San Antonio EAC region (SAER) from July 2006 through December 2006. Several milestones were accomplished during this timeframe. Emission Inventory (EI) and modeling milestones include updated to the 2005 EI, geo-coding of these emissions, updates to the 1999 photochemical model base case, and emissions control strategy modeling. Progress of the Alamo Clean Air Partnership, Clean Cities, Adopt A School Bus program, and Transportation Emissions Reductions Measures (TERMs) projects met milestones for voluntary and State Implementation Plan (SIP) credit control strategies for the San Antonio region. Additional public outreach efforts include media related services, presentations, events, and the distribution of outreach materials. Maintenance of growth and air quality planning milestones were met in the SAER by continued efforts in emissions assessments and analysis of new strategy requirements, such as additional emissions reduction measures. Attached to this report are Appendices for Outreach Efforts, TERMS projects, a list of new major point source air permits in or around the EAC region, 2005 EI progress, and a progress report regarding EAC milestone achievements.</p> |                                |  |
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## ***Executive Summary***

As required by the Early Action Compact (EAC), areas that are participating in this early voluntary 8-hour air quality planning process must assess and report their progress in achieving EAC milestones on a regular basis, through a public process, at least every six months or semi-annually. This document fulfills these requirements for the eighth semi-annual (July through December 2006) period for the San Antonio EAC region.

Emissions Inventory (EI) and modeling progress for the reporting period include continued development of the 2005 EI (as required for emissions trend analysis), updates to the 1999 photochemical model base case, and control strategy analyses. In meeting this milestone, emissions were estimated and geo-coded for the 2005 emissions inventory according to Environmental Protection Agency (EPA) approved methodologies. These emissions included area, nonroad, and military sources. In addition, methodologies were refined to include more local data and sources were added, as methodologies became available. Emissions control strategy modeling included analyses on plug-in hybrids and the use of a heavy-duty diesel vehicle (HDDV) anti-idling ordinance.

Continued progress of State Implementation Plan (SIP) creditable control strategies include progress in Transportation Emission Reduction Measures (TERMs) projects. The completion dates for TERMS projects have been updated or added where applicable. TERMS projects listed in the original March 2004 submission of the local revisions to the SIP were to be completed by December 31, 2007. The TERMS list will be reviewed on an ongoing basis to determine were new projects should be substituted for projects that will not be complete by December 31, 2007.

Voluntary control strategy development continues with progress marked by the Alamo Clean Cities (AACC) program, Alamo Adopt A School Bus program, and the Alamo Clean Air Partnership (ACAP) program. AACC staff conducted three "Slash Your Fuel Costs" workshops and supported other emission reduction events. The Clean Cities section also features information on the opening of E85 stations by HEB Grocery. The Alamo Area Council of Governments (AACOG) staff continued to promote the Alamo Adopt A School Bus program by presenting program information to the CENTEX Pupil Transportation Consortium in addition to school districts. Updates to the Green Patrol and the EPA Idle Reduction Pilot program are also given in this progress report. AACOG outreach staff continued to actively seek new partners for participation in the ACAP program. The partnership list now includes fifteen local entities dedicated to improving air quality in the San Antonio region. To streamline the ACAP application process, AACOG staff has designed the "Take Out Air Pollution" program. This program features a take-out like menu of pollution reduction options; based on the options selected by an applicant, staff can estimate the possible reductions of pollutants.

Public involvement and outreach continues to be an important component of the San Antonio regional Clean Air Plan. Air quality information is disseminated to the public through a variety of media categories -- newspaper, Internet, TV, and radio -- in order to reach as large and diverse an audience as possible. The public involvement milestone is also advanced through local programs and events in which the public is informed of air quality issues, health consequences, and measures that reduce air pollution. The highlights of public involvement and outreach in 2006 include the distribution of nearly 400 Air Quality Health Alert banners to area schools and innovations in the Commute Solutions program that are intended to increase the use of carpooling and other alternative modes of commuting.

Under the heading of Maintenance for Growth, local air quality planners are working to ensure the attainment of the eight-hour average ozone (8-hour ozone) National Ambient Air Quality

Standard (NAAQS) by reviewing growth and emissions inventory patterns to determine the projected status of the region. At this time, it is unsure as to whether the SAER will be in attainment by the end of 2007. As specified in the New Strategy Requirements milestone, local air quality planners are investigation possible measures to ensure San Antonio reaches attainment. Maintenance of the ozone standards is important to operators of local industry, as well; several have proven receptive to planning suggestions that would aid local air quality improvement efforts.

The San Antonio region has successfully maintained steady progress in accomplishing EAC milestones from July to December 2006, ensuring proper development of the Clean Air Plan.

## Chapter 1 – Introduction

The Early Action Compact protocol is designed to guide development and implementation of control strategies, including planning for near-term growth, in order to achieve and maintain the 8-hour ozone standard. This compact offers a timeline with a more rapid timeframe for achieving emission reductions than the EPA 8-hour implementation rulemaking<sup>1</sup>, while providing "fail-safe" provisions for the area to revert to traditional nonattainment processes if specific milestones are not met. The EAC agreement signed by the EPA, the Texas Commission on Environmental Quality (TCEQ), and local elected officials is available online at: <http://www.aacog.com/cap/>.

As required by EAC guidance, areas participating in early voluntary 8-hour air quality plans must assess and report their progress in achieving EAC milestones in a regular, public process every six months. This document will fulfill the requirement for the eighth semi-annual progress report written for the San Antonio EAC.

The milestones in this report which are described in the EAC are:

- Completion of and updates to emissions inventories as outlined in section b), Emissions Inventory;
- Completion of and updates to modeling as outlined in section c), Modeling;
- Post-attainment demonstration and plan updates as outlined in section e), Maintenance for Growth;
- Continued public involvement in the planning process which will be conducted as outlined in section f), Public Involvement. This is in addition to the public reporting conducted at least once every six months, as outlined above.

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<sup>1</sup> Federal Register / Vol. 68, No. 105 / Monday, June 2, 2003 / Proposed Rules; 40 CFR Part 51; Proposed Rule To Implement the 8-Hour Ozone National Ambient Air Quality Standard; see "2. What Is the 'Early Action Compact' for Implementing the 8-Hour Ozone NAAQS," page 32859. Available online: <http://www.epa.gov/fedrgstr/EPA-AIR/2003/June/Day-02/a13240.pdf>



## Chapter 2 – Early Action Compact Milestones

The Early Action Compact (EAC) specifies milestone requirements and delivery dates based on the EAC Memorandum of Agreement (MOA).<sup>2</sup> The milestones are addressed in the sections that follow.

### 2.1 Emissions Inventory Milestones

The ongoing analysis of emissions in the San Antonio EAC Region (SAER) is an essential element in the maintenance of the Emissions Trend Analysis milestone of the Clean Air Plan. AACOG staff continues to develop the 2005 EI and has calculated emissions estimates for many area and nonroad source categories during the 6-month reporting period of this report. These included:

#### Area Sources

- Asphalt Paving
- Asphalt Roofing
- Catastrophic/Accidental Releases
- Commercial and Residential Gas Cans
- Dry Cleaners
- Fires
- Gasoline Distribution
- Gasoline Pipelines & Pumping Stations (New Category)
- Graphic Arts
- Landfills
- Oil and Natural Gas Wells
- Remediation of Underground Storage Tanks
- Stationary Diesel Generators (New Category)
- Truck Idling (New Category)
- Wastewater

#### Nonroad Sources

- Agriculture Equipment
- Construction Equipment
- Railways

#### Airport/Military Sources

- Camp Bullis
- Fort Sam Houston

#### 2.1.1 New Methodology for Area or Nonroad Source Emission Calculations

This section describes emission calculation methodology for any new categories that have been added since the AACOG 2002 EI<sup>3</sup> or existing categories for which the methodology has been improved upon.

##### Agricultural Pesticides (Methodology Refined)

A slight improvement was made to this category – determination of percentage of planted acreage on which the pesticide was applied. It is important to note that many “pesticides are applied as a band over the row and not the total area. For example, a herbicide may be sprayed in a 10 inch band on rows planted 40 inches apart - so the actual herbicide use would be 10/40 or about 25% of the planted acreage.”<sup>4</sup> Once the rates were converted, an average application rate was obtained per pesticide per acre. An emission factor per acre was calculated for both active ingredient per acre and for inert ingredient per acre by crop type.

<sup>2</sup> Chapter V. Early Action Compact Memorandum of Agreement (MOA); available online: <http://www.aacog.com/cap/CAP2002.html#5>

<sup>3</sup> AACOG, 2002. “2002 Emissions Inventory for the 12 county AACOG Region” Available online: [http://www.aacog.com/NaturalResources/2002\\_NET\\_EI/default.htm](http://www.aacog.com/NaturalResources/2002_NET_EI/default.htm)

<sup>4</sup> Smith, Dudley, July 26, 2005 e-mail, “Ag practices Pesticides”, Soil and Crop Sciences, Texas A&M University

Dry Cleaners (Methodology Refined)

Dry Cleaners were surveyed by phone for Bexar and surrounding counties to obtain the following information:

1. Is dry cleaning done at that facility or are the clothes taken to another facility?
2. If the clothes are taken to another facility, which facility?
3. What type(s) of chemical(s) are used to clean the clothes?

Gasoline Pipelines and Pumping Stations (New Category)

Location and miles of pipeline for each county were obtained from the Texas Railroad Commission (RRC). The numbers of valves, pump seals, fittings/flanges, and open-ended lines per county were determined. In addition, the local oil companies were surveyed to determine the number of pumping stations, pig receivers, and valves per mile of pipeline.

Truck Idling (New Category)

The main source for information on number and location of rest areas, picnic areas, and truck stops in the San Antonio region used for EI development was the website of the Texas Department of Transportation (TxDOT) Maintenance Division. The following sources were used to supplement the TxDOT source: Yahoo yellow pages, trucking industry web pages, facility managers, Texas Transportation Institute (TTI), and the Eastern Research Group (ERG) reports. These sources were also used to determine parking capacity, idling rate, and utilization rates of these Heavy Duty Diesel Vehicles (HDDV) facilities. Field observations by ERG subcontractor, Alliance Transportation Group (ATG), were used to determine temporal allocations for occupancy rates and idling rates. The EPA recommended a 135 g/hr NO<sub>x</sub> emission factor (EF) and a 42.3 g/hr VOC EF for Class 8 truck idling.<sup>5</sup>

Fires (Methodology Refined)

Data on Structural and Vehicle fires was obtained from the State Fire Marshall, Texas Dept. of Insurance. For open burning refuse (residential and commercial), the EPA 2002 NET EI methodology was applied. For open burning vegetation and agricultural field burning data, University of Texas at Austin (UT) results from the "Inventory of Air Pollutant Emissions Associated with Forest, Grassland, and Agricultural Burning in Texas" was used.

Stationary Diesel Generators (New Category)

Stationary diesel generators have a wide range of hours of operation based on the capacity of the generator: emergency, peak, or baseload capacity; capacity type was determined first. The NorthEast States for Coordinated Air Use Management (NESCAUM) for EPA study<sup>6</sup> was utilized for the allocation of generators by county. To calculate capacity by county, a population to generator ratio was determined (generator capacity for each capacity category divided by the total generator population). To calculate emissions, the population to generator ratio was multiplied by the population of each AACOG county for 2005; and generators were divided into kW ranges.

Residential Lawn and Garden Equipment (Methodology Refined)

Ipsos-Insight was contracted to conduct a Computer-Assisted Telephone Interviewing (CATI) survey with 18+ year-old household members residing within the 12-county AACOG region. Ipsos-Insight also determined residential Lawn & Garden usage rates from the data gathered through this survey.

<sup>5</sup> Chris Kite of TCEQ: results of testing exhaust emissions from five Class 8 trucks presented in a report entitled "Particulate Matter and Aldehyde Emissions from Idling Heavy-Duty Diesel Trucks"

<sup>6</sup> NESCAUM, June 2003. "Stationary Diesel Engines in the Northeast: An Initial Assessment of the Regional Population, Control Technology Options and Air Quality Policy Issues"

### Boating Emissions (Methodology Refined)

Boating emissions methodology was updated to reflect emissions allocations based on navigable waterways in Texas. This approach utilized ERG methodology<sup>7</sup> to determine which lakes in Texas were navigable. There were several updates to EGR methodology to determine navigable waterways including the additional of two counties along the Texas coast (San Patricio and Jefferson County). Lake acreage was also updated including the additional of several lakes in the AACOG region.

## **2.2 Modeling Milestones**

The photochemical model is a valuable tool available to air quality planners interested in understanding and reducing ground-level ozone concentrations. The photochemical model is a computer simulation of the formation and movement of ground-level ozone. Performing on-going modeling updates ensures that planners have the most accurate modeling data required for air quality planning activities. These updates may come in the form of refinements to past emissions inventories, creation of new emissions inventories for more recent years than the inventories used in past episodes, and continuing updates to the Conceptual Model.

### 2.2.1 Photochemical Model Updates

The 1999 photochemical model base case updates include the geo-coding of 2005 EI emissions; Appendix E contains the schedule for 2005 EI emission source geo-coding. The sources that were geo-coded during the July – December 2006 reporting period include the following:

- Auto Body Shops
- Bakeries
- Diesel Lawn & Garden Equipment: Golf Courses
- Diesel Lawn & Garden Equipment: Public Schools
- Gasoline: Aboveground Storage Tanks (AST)
- Gasoline: Underground Storage Tanks (UST)
- Graphic Arts
- Landfill Equipment
- Landfills: Open & Closed
- Natural Gas Compressors: Oil Wells
- Oil Wells
- Surface Coating
- Truck Idling
- Vehicle Refueling: Service Stations
- Wastewater Facilities

### Truck Idling

A large portion of truck idling emissions occurs at night; thus, a temporal adjustment was made for use in the photochemical model. Figure 1 shows the hourly distribution of total daily NO<sub>x</sub> and VOC emissions from idling trucks. As it is indicated the emissions of VOC and NO<sub>x</sub> are flat during the daytime, reaching peak levels by 10:00 PM. These levels continue through the night until 4:00 AM, gradually reducing during the morning hours of the next day. Figure 2 shows the estimated effect truck idling emissions had on ozone concentrations at CAMS 23 and CAMS 58.

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<sup>7</sup> ERG, August 28, 2002. "Recreational Marine Emissions Inventory"



Figure 1. AACOG VOC and NOx Hourly Emissions Estimated for Truck Idling, 2005

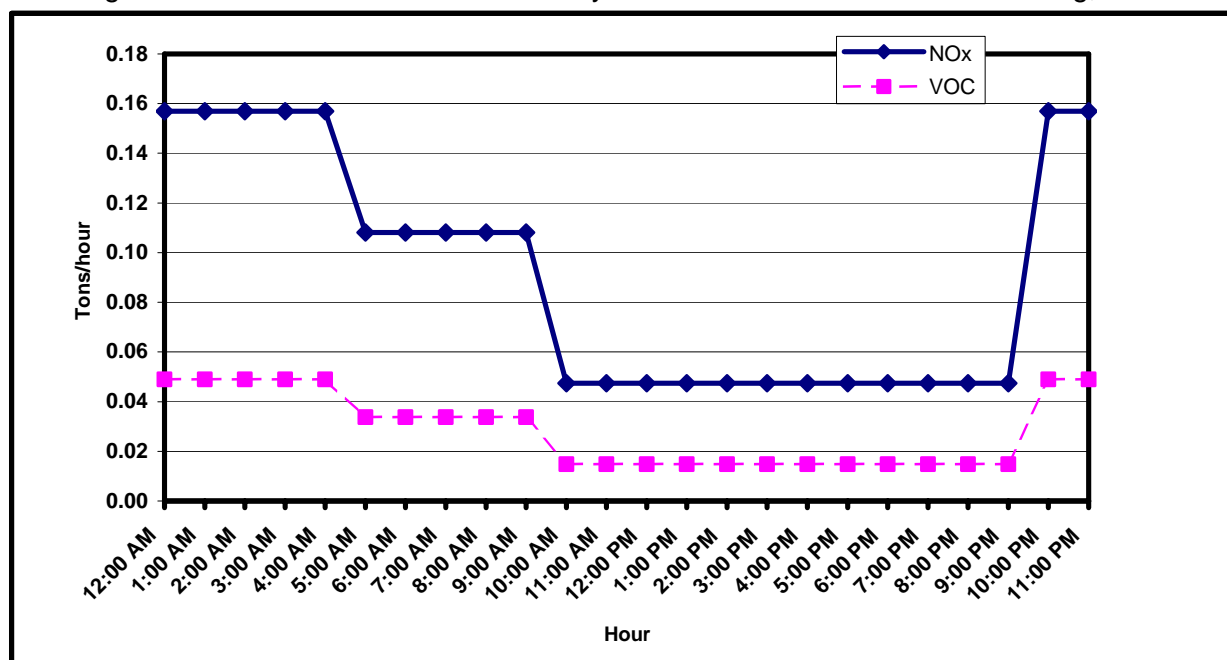
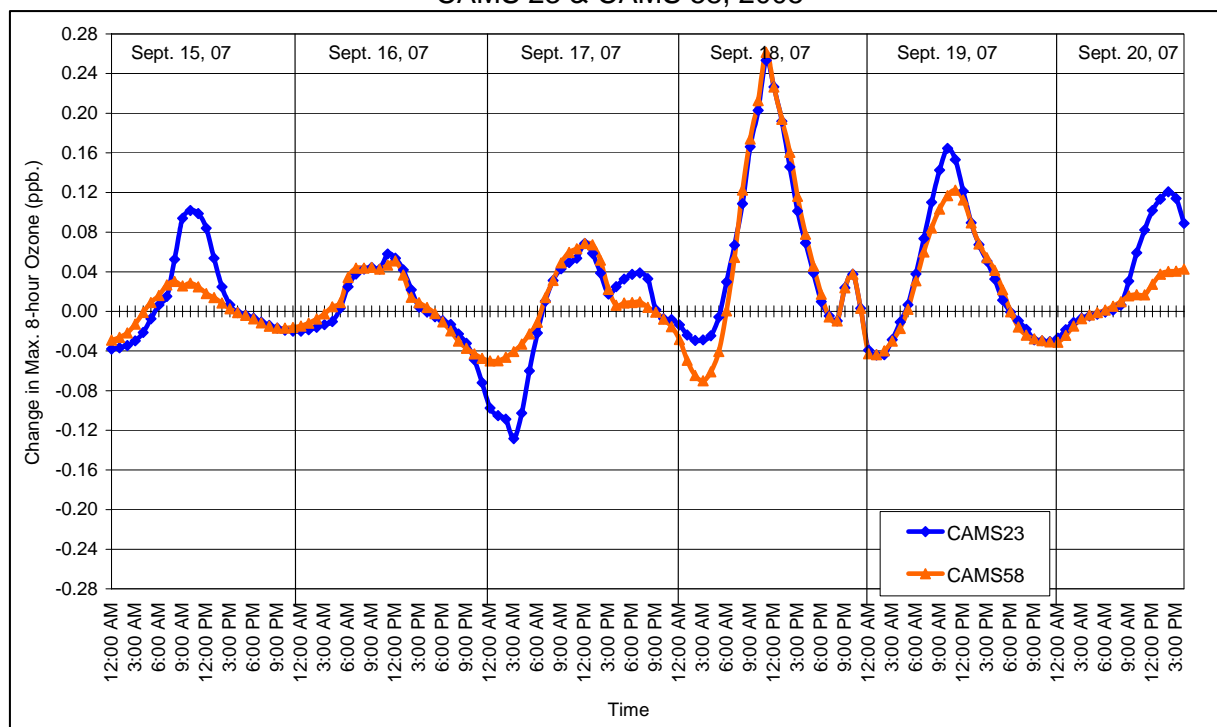


Figure 2. Maximum Estimated Impacts of Truck Idling on Ozone Concentrations at CAMS 23 & CAMS 58, 2005



### 2.2.2 Emissions Control Strategy Modeling

The AIR Executive/Advisory committees requested that several emissions control strategies be analyzed for possible reductions of 8-hr average ozone levels in the SAER. These strategies

included the use of plug-in hybrids and a heavy-duty diesel idling ordinance. Both strategies were analyzed through the use of photochemical modeling.

#### Plug-In Hybrids

Photochemical modeling was performed to analyze possible reductions from the use of plug-in hybrids. The study was based on emissions from 100,000 on-road vehicles (light-duty gas vehicle or equivalent) added to the modeling EI as compared to emissions from 100,00 plug-in hybrids added to the modeling EI. The same methodology was used to compare traditional hybrids to the plug-in hybrids, as well. The analysis compared results of emissions from an average vehicle to those of plug-in hybrids and emissions from traditional hybrids to those of plug-in hybrids. The results to the latter comparison are listed in Table 1.

Table 1. Design Value (DV) Comparison: Average Vehicle, Hybrid, & Plug-in Hybrid

| Continuous Air Monitoring Stations (CAMS) | 2007 DV w/Hybrid (ppb) | 2007 DV w/Plug-in Hybrid (ppb) | Difference (ppb) |
|---|------------------------|--------------------------------|------------------|
| CAMS 23                                   | 84.282                 | 84.278                         | -0.004           |
| CAMS 58                                   | 81.979                 | 81.971                         | -0.008           |

The AIR Executive/Advisory committees and the City of San Antonio passed resolutions supporting plug-in Hybrids. “A PHEV combines today’s new hybrid technology with added battery capacity to achieve a greater all-electric operating range. The battery pack can be recharged by plugging into an ordinary home or business outlet. When a travel range is needed that exceeds the capacity of the battery pack, the automobile operates on gasoline or biofuels.”<sup>8</sup>

#### Heavy Duty Diesel Idling Ordinance

An anti-idling rule of HDDVs would prohibit idling a heavy-duty motor vehicles for more than five to ten consecutive minutes when the vehicle is not in motion, unless the driver is using the engine to heat or cool a sleeper berth while taking a federally mandated rest break. This measure is aimed to reduce emissions of toxics and criteria pollutants by limiting short-duration idling. The analysis was based on reducing the short-duration idling by HDVs to five minutes per each stop: cargo destinations, lunch breaks, checking of vehicle, etc. Long-haul trucks would be excluded from the rule while taking a federally mandated rest break.

### **2.3 Control Strategy Development Milestones**

Enforceable state control strategies were put in place under the Early Action Compact at the request of local elected officials. The regional leadership is interested in ensuring that the greatest emissions reductions available through these measures are obtained. Efforts continue to verify that SIP creditable strategies are implemented as stated within the SIP.

In addition to control measures for which SIP credit can be obtained, **voluntary strategies** are also promoted and implemented in the San Antonio region. AACOG staff continues to encourage the adoption of voluntary measures through such programs as Commute Solutions, Clean Cities, and the Alamo Clean Air Partnership.

<sup>8</sup> Quote from *Plug-In Partners National Campaign*

### 2.3.1 Alamo Area Clean Cities

Through the Alamo Area Clean Cities (AACC) program, technical and outreach assistance is provided for alternative fuels and Clean Cities technologies (fuel blends, idle reduction technologies, hybrids, and fuel economy) to fleet operators in the San Antonio Early Action Compact Region. During the six-month reporting period, June – December 2006, AACC hosted a stakeholder meeting, on August 10, 2006, and supported a number of events including these highlighted below:

#### *“Slash Your Fuel Costs” Workshop Series*

AACC staff partnered with representatives from the Texas State Energy Conservation Office and the Texas Railroad Commission (RRC) to provide a workshop series for stakeholders. The “Slash Your Fuel Costs” workshop series consisted of four workshops addressing alternative fuels and fuel economy practices. Franz Hofmann, Lead Automotive Technician from the RRC, provided the workshop content.

#### *H-E-B Grocery Opens E85 Station*

H-E-B Grocery debuted an E85 dispenser at the H-E-B Grocery Store off of I-35 and FM 3009 in north Bexar County on August 16, 2006. H-E-B announced that the E85 would sell for thirty cents less than gasoline as a commitment to providing clean burning fuels to the citizens of South Texas. H-E-B is a proud member of the Clean Cities Coalition as well as the sole charter member of the Alamo Clean Air Partnership.

#### *Hybrid Taxi Initiative*

The AACC coordinator and other AACOG staff met with City of San Antonio officials to provide support promoting the use of hybrid-electric vehicles as taxis. Due to wheelbase restrictions for taxis servicing the San Antonio International Airport, most owner operators did not consider hybrids viable options for use as taxi vehicles. Thanks to the efforts of the City Council people and others the wheelbase restriction was rescinded in the latter half of 2006.

### 2.3.2 Alamo Adopt A School Bus

AACOG staff promotes and coordinates the Alamo Adopt A School Bus (AASB) program, a cooperative partnership established to aid school districts in replacing their aging school bus fleets with new “clean fuel” buses. Achieving this goal requires educating school districts and corporations about the benefits of replacing older diesel buses with lower emission “clean fuel” buses. Efforts to reduce school bus emissions could also involve the combination of replacing and retrofitting buses with new technology to achieve NO<sub>x</sub> and PM reductions and the possible use of low-sulfur fuel.

#### *CENTEX Pupil Transportation Consortium*

During the 6-month reporting period, AACOG staff provided AASB program presentations to the CENTEX Pupil Transportation Consortium in addition to the school districts. The Consortium is comprised of transportation directors of school districts in the Alamo and Austin regions.

#### *Green Patrol*

Green Patrol is an idle reduction program that encourages parents and bus drivers to refrain from idling their vehicle engines for extended periods while dropping off and picking up school students. The AASB staff is coordinating a pilot program of the Green Patrol with Camelot Elementary in Bexar County; the pilot program began on September 20, 2006. An assessment of the baseline emissions was established and another assessment will be conducted at the end of the pilot program to determine the success of the project.

### EPA Idle Reduction Pilot Program

Alamo AASB program was part of a pilot program administered by the EPA to evaluate the effectiveness of idle reduction materials created for schoolteachers and school bus drivers. Teachers and drivers from Edgewood ISD in Bexar County participated in the program; a presentation was provided for transportation staff and school bus drivers regarding the benefits of reducing unnecessary idling.

### Central Texas/Alamo Area Biodiesel Workshop

Alamo AASB staff collaborated with staff from Central Texas Clean Cities, Central Texas AASB, and Alamo Area Clean Cities to provide a biodiesel workshop for transportation directors in the Alamo and Central Texas regions. Austin Biodiesel representatives helped sponsor the event.

### 2.3.3 Alamo Clean Air Partnership

The Alamo Clean Air Partnership (ACAP) program continues to serve as the air quality outreach vehicle for San Antonio area employers. The program was created to encourage public and private businesses and agencies to voluntarily reduce their air pollution emissions. Air pollution reduction measures implemented by current partners affect a wide range of on-road, non-road, and point sources.

The primary focus of ACAP during the July through December 2006 period has been to increase participation in the program by meeting one-on-one with industry leaders as well as working through business associations, such as the San Antonio Manufacturers Association. During the latter half of 2006, a new campaign was launched to promote the ACAP program and simplify the membership process, as described below.

### Take Out Air Pollution

This new program, features a simple "TakeOut Menu" that lists measures any organization can implement to reduce air pollution. Examples of TakeOut menu items include energy conservation and employee carpool programs. Organizations participate in the campaign by implementing one or more measures listed in the TakeOut menu. The organization is asked to contact AACOG with information on their TakeOut program. AACOG staff quantifies these programs in terms of emission reductions and adds the information to the voluntary emission reduction database.

### Current ACAP Members:

- H-E-B Grocery Company
- City of San Antonio
- Raba-Kistner Consultants, Inc.
- San Antonio Water System
- USAA
- Valero Energy Corporation
- CPS Energy
- Harlandale ISD
- San Antonio-Bexar County Metropolitan Planning Organization
- San Antonio College
- San Antonio Express-News
- Texas Department of Transportation, San Antonio District
- University of Texas at San Antonio
- Alamo Area Council of Governments
- VIA Metropolitan Transit

### 2.3.4 Texas Emission Reduction Plan

AACOG staff continues to vigorously promote the Texas Emissions Reduction Plan (TERP), created in 2001 by Texas Senate Bill 5. When finalizing the local revisions to the SIP, in compliance with the EAC, local elected officials requested a 2-ton per day reduction of NO<sub>x</sub> emissions in the 4-county SAER through local TERP projects. The state is currently not soliciting applications from the San Antonio area because the state has successfully provided the level of funding required for the region to meet the 2.0 tpd NO<sub>x</sub> emissions reduction target.

### 2.3.5 Transportation Emission Reduction Measures (TERMs)

TERMs projects include projects listed on the San Antonio/Bexar County Metropolitan Planning Organization's Transportation Improvement Program (TIP) and projects sponsored by local governments that are not federally funded. The projects, which qualify as TERMS projects, aim to reduce congestion and/or the number of trips made by vehicles, ultimately improving the air quality by reducing emissions. These projects have completion dates scheduled from 1999 through 2007.

However, the completion of **some** TERMS projects is not anticipated by Dec. 2007. Projects such as these have progressed slowly due to external influences (changes in construction plans, etc.). The EPA has accounted for these external influences by allowing substitute projects to replace the slower moving ones. Substitute projects are projects that were not on the original list approved for SIP credit and are scheduled for completion prior to Dec. 31, 2007. ***Substitutions for the projects not completed by December 2007 listed in Appendix B will be determined during a continuing evaluation process.***

Table 2. TERMS Project Completion Status; Estimates as of December 2006

| Project Completion Status         | Number of Projects | NO <sub>x</sub> (lbs/day) | VOC (lbs/day)   |
|-----------------------------------|--------------------|---------------------------|-----------------|
| Completed                         | 282                | 338.987                   | 878.413         |
| 2007 Completion Dates             | 7                  | 3.270                     | 9.790           |
| Completion Dates Unknown          | 32                 | 27.518                    | 62.542          |
| <b>Completion Dates Post 2007</b> | <b>11</b>          | <b>50.961*</b>            | <b>144.440*</b> |

\*Substitutes must be found for these projects with equivalent or greater reductions

## 2.4 Maintenance for Growth Milestones

Assurance of the air quality situation in Maintenance Year 2012 is a vital aspect of the ongoing planning activities by stakeholders in the EAC for the San Antonio region. Accomplishing this milestone is essential and would indicate that the efforts of the stakeholders in the SAER were successful.

### 2.4.1 Updating the Planning Process

Various stages of planning and verification must be performed on a continual basis to ensure timely emission reductions for the region to maintain air quality standards. The impacts of new point source related emissions, economic and population growth, and the implementation of new control strategies are evaluated during the air quality modeling process.

### 2.4.2 SIP Control Strategy Implementation

Appendix D lists progress achieved in implementation of the San Antonio EAC region control strategies. The table lists by measure, description, status, implementation date, and NO<sub>x</sub> and VOC reductions. The only control strategy that remains to be fully implemented is TERMS. The TERMS projects were scheduled for full implementation by December 2007; that is, all TERMS projects were originally to be completed by the end of December 2007. As discussed in section



2.3.5 of this chapter, some TERMS projects now have implementation dates close to the end of 2007 or later, Appendix B Table IV.

#### 2.4.3 New Issues & Questions

An increase in state air permit applications by the cement, electrical generation, and petroleum refinery industries in Texas occurred during the first several months of 2006. Investigations continue by AACOG and other air quality staff of both near nonattainment and nonattainment areas of the state to determine the potential impacts of such industrial growth.

Local cement manufacturers have expressed a continued willingness to work with regional air quality planners to develop changes or adjustments to their operations to benefit air quality planning. AACOG is eagerly working with the industry to determine the most cost-effective measures to be employed on the widest scale possible, either within industry or in the community at large, to assist efforts to regain full attainment status. Appendix C contains the list of sources, which AACOG staff will continually check for increase/decrease of emissions and ozone due to new/closing plants, expansions/downsizing at existing plants, or the implementation of emission controls.

#### 2.4.4 New Strategy Requirements

At this time, review of growth and emissions inventory patterns may support a call for additional measures enacted locally. The AIR committees and the City of San Antonio as well as other entities are investigating potential measures that could be implemented locally. Some of these measures include:

- Heavy duty diesel truck anti-idling ordinance (section 2.2.2 of this report)
- Voluntary measures taken by point source permit applicants to offset additional emissions
- Smoking vehicle rule – ticket smoking vehicles
- Hybrid taxis
- Hybrid or alternative city/county fleets
- Cleaner fuel school buses (section 2.3.2 of this report)
- AQHA banner initiative (section 2.5.2 of this report)

### **2.5 Public Involvement Milestones**

Educating the public about the importance of the region's air quality continues to be a crucial effort for the Clean Air Plan. Outreach and education efforts continue within the SAER, often through partnerships with other governmental entities and industrial leaders in the area. As the Clean Air Plan is developed, citizens and citizen groups are given the opportunity to be involved in the Clean Air Plan development process.

#### 2.5.1 Media

During the second half of 2006, AACOG partnered with a number of agencies and companies to conduct press conferences that focused on such issues as Air Quality in the San Antonio area; the Walk & Roll Challenge; and alternative commuting (e.g., carpooling, riding the bus, and walking).

#### *Air Quality Health Alert (AQHA) Program*

AACOG ensures the AQHA program is broadcast to as large an audience as possible by working with media partners to distribute AQHA announcements by television, radio, newspaper, and media websites. During the 2006 Ozone Season, the AQHA notifications were received and distributed by seven television stations, twenty-six radio stations, and five newspapers. In 2006, AACOG also partnered with SCAN USA to distribute the AQHA through more outlets (e.g. text messaging).

### Air Quality Education Via Media

Local media aired educational segments in which AACOG staff participated. The topics of these segments included: San Antonio regional air quality and measures the public can take to reduce air pollution from the vehicles they drive. In addition, there were a number of radio and newspaper interviews printed and aired during the six-month reporting period, Appendix A.

### Other Media Efforts

Between July and December, 2006 there were 3 press releases, 2 press conferences, and an air quality advertising campaign that aired on 4 radio stations and 1 television station through the end of the ozone season. There were also media-sponsored health events, where air quality outreach materials were distributed, and radio/television/newspaper announcements regarding the Walk & Roll Challenge.

### 2.5.2 Other Outreach Efforts

Non-media related outreach efforts continue. From July through December 2006, a number of governmental, private, school, and/or civic group presentations were provided, Appendix A. Such events allow AACOG staff to educate citizens on how everyday actions contribute to air pollution and how alternate methods of doing the same tasks can help reduce emissions.

### Councilman Christopher “Chip” Haass AQHA Banner Initiative

City of San Antonio Councilman Chip Haass’ initiative gave the AQHA banner program a boost by offering to purchase banners for San Antonio area schools, if they agree to hang the banner outside on AQHA days. Each San Antonio school district and the Archdiocese for Catholic Schools have received AQHA banners and program materials (such as the Ozone 101 School Toolkit), totaling nearly 400 banners and toolkits distributed. The toolkit explains ozone pollution and its effects on children and highlights the available AACOG Outreach programs and services.

### Air Quality Materials and Information Distribution

To increase awareness of air quality topics among the general public, AACOG distributes thousands of brochures, booklets, flyers, and promotional items developed by AACOG or given to AACOG for distribution by other organizations or agencies. These distributions are listed in Appendix A under the header “Informational Materials and Distributions for All Outreach Efforts through AACOG.” Additionally, AACOG maintains an air quality website, which is updated weekly and provides a wealth of information on air quality issues. Websites relating to air quality issues or containing air quality information in the San Antonio EAC region are listed in Appendix A, under the header: *Websites for Public Viewing*.

### Commute Solutions Program

The Commute Solutions program is designed to reduce the number of single occupancy vehicles (SOVs) by promoting alternative forms of transportation, such as RideSharing (carpooling, vanpooling, & SchoolPooling), Bike Buddies, and Walking School Bus (WSB). Below is the current list of organizations participating in the program’s RideShare matching services. The names in ***italic bold*** indicate those that have made requests for matches within the July – December 2006 reporting period.

#### ***Carpooling:***

- CPS Energy
- Northwest Vista College
- Southwest Research Institute
- Bexar County
- AACOG

- Standard Aero
- First Health
- **Lackland AFB**
- **San Antonio Water System (SAWS)**
- **City of San Antonio (COSA)**

***SchoolPool & Walking School Bus*** (indicated as “WSB, too” below)

- Northeast School of Arts
- International School of the Americas
- San Antonio PREP & EDGE (summer only)
- Candlewood Elementary (WSB, too)
- Evers Elementary (WSB, too)
- Encino Park Elementary

**Environmental Stewardship Awards**

In December 2006, the AACOG outreach team recognized several program participants for their commitment voluntary control strategies aimed at reducing emissions stemming from employee/patron activities. The awards went to the following participants:

- Candlewood Elementary – Walking School bus program & SchoolPool (since 2003)
- Northeast School of Arts – SchoolPool program (since 2003)
- San Antonio PREP – SchoolPool program (since 2004)
- Edgewood ISD – Idle Reduction program
  - Implemented No Idle policy (after attending the Corporate Challenge Officer Rally)
  - Reworked bus routes to increased efficiency and minimize miles traveled)
  - Participated in AACOG anti-idling workshop
  - Pursuing grant funding to purchase cleaner running buses
- Harlandale ISD – Innovative changes to reduce driving time per each employee
  - ISD Police Dept. implemented the use of bicycle patrols
  - Rearranged employee schedules to combine shifts for carpooling use
  - Rearranged employee schedules so one vehicle can be used to transport employees between different district locations
- Bexar County

The Commute Solutions staff is working on a faster and more efficient matching process. The development of a real-time matching system is currently underway; this would enable participants to logon with their information to receive matches immediately. Goals for 2007 also include launching an employee rideshare incentives package; employees would be awarded points for every carpool trip to be cashed in for gift cards.

**2.5.3 Public Meetings/Clean Air Plan Workshops**

In accordance with the EAC, the public has opportunities to participate with the ongoing development of the Clean Air plan in order to familiarize themselves with the process and goals of the project. The regularly scheduled bi-monthly meetings of the AIR Executive Committee, the planning committee for air quality planning under the Early Action Compact in the San Antonio region, are open to the public and always have a Citizens to Be Heard agenda item. Additional exposure to the project is expressly provided to the public through other meetings and workshops. This is achieved through the hosting of Clean Air Plan Workshops, which are called to discuss special topics with dates and times based on feedback from the public and scheduled typically on workweek evenings alternating with Saturday mornings. These workshops, in addition to all the regularly scheduled Air Improvement Resources (AIR) Executive/Advisory Committee meetings, provide a solid basis for public education, process access and comment.





### Chapter 3 – Conclusion

The San Antonio EAC region has successfully maintained steady progress in accomplishing EAC milestones and ensuring proper development of the Clean Air Plan. Completion of the milestones included appropriate participation of stakeholders in the air quality planning process, ongoing development and research of potential control strategies (to include voluntary strategies), provisions for public participation in the development of the Clean Air Plan, and continued development of technical activities and testing of model performance. Accomplishing these milestones allowed efficient development of the Attainment Demonstration and enhanced confidence in the validity of its technical data.

The San Antonio EAC region remains compliant with the prescribed milestones as given by the *Protocol for Early Action Compacts Designed to Achieve and Maintain the 8-Hour Ozone Standard*.<sup>9</sup> The region will continue to comply with the milestones as required.

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<sup>9</sup> The "Protocol for Early Action Compacts Designed to Achieve and Maintain the 8-Hour Ozone Standard" is available online as [http://www.epa.gov/ttn/naaqs/ozone/eac/20020619\\_eac\\_protocol.pdf](http://www.epa.gov/ttn/naaqs/ozone/eac/20020619_eac_protocol.pdf)

## AACOG Public Outreach Efforts (01/06 - 06/06)

Appendix A: Outreach Efforts

July 1, 2006 through December 31, 2006

## 1. Television

| Type of Outreach | Subject                         | Contact Persons w/Organizations           | Date  | Target Audience |
|------------------|---------------------------------|---|---|-----------------|
| Weather Forecast | Air Quality Health Alert (AQHA) | WOAI TV<br>KENS TV<br>KSAT TV<br>FOX News | 08/19/06<br>08/31/06<br>09/01/06<br>09/7-8/06<br>09/14/06 | General Public  |
| Interview (KENS) | Air Quality Morning News        | Brenda Williams, AACOG                    | 7/1/06  | General Public  |
|                  |                                 |   |   |                 |

## 2. Radio

| Type of Outreach | Subject                               | Contact Persons w/Organizations  | Date  | Target Audience |
|------------------|---------------------------------------|--|---|-----------------|
| Weather Forecast | AQHA                                  | KTSA-radio<br>WOAI-radio<br>KSYM Radio<br>Texas Public Radio<br>BBN Radio Station KYFS | 08/19/06<br>08/31/06<br>09/01/06<br>09/7-8/06<br>09/14/06 | General Public  |
| Interview (KAHL) | Air Quality                           | Brenda Williams, AACOG<br>Rosa Rsales, KAHL  | 7/6/2006  | General Public  |
| Interview (WOAI) | Air Quality & Carpooling              | Brenda Williams, AACOG<br>Bud Little, WOAI   | 8/17/2006   | General Public  |
| Interview (TPR)  | <a href="#">Air Quality in Region</a> | Abra Schnur, TPR<br>Amber Mayne, AACOG   | 9/25/2006   | TPR Listeners   |
| Interview (KSJL) | Air Quality & W&R Challenge           | Peter Bella, AACOG<br>Matari Jones, Community Focus, KSJL                              | 10/5/2006   | KSJL Listeners  |
|                  |                                       |  |   |                 |

## 3. Newspaper &amp; Internet

| Source                       | Title of article   | Contact Persons w/Organizations                                 | Date      | Target Audience |
|------------------------------|--|---|-----------|-----------------|
| Article: SA express News     | "Bad-air days now may come back to haunt us in '08"                | Renee Green, Bexar County<br>Anton Caputo, SA Express-News      | 7/1/2006  | General Public  |
| Article: SA Business Journal | "Sweetening the fuel market"                                       | Isabel Martinez, AACOG<br>Lisa Sorg, SA-based free-lance writer | 8/25/2006 | Businesses      |
| Article: SA express News     | "Walk & Roll Challenge is geared at getting commuters out of cars" | Al Notzon, AACOG<br>Patrick Driscoll, SA Express-News           | 10/5/2006 | General Public  |

**4. Governmental, Civic, or Private Group**

| Type of Outreach | Subject                       | Contact Persons w/Organizations              | Date       | Target Audience          |
|------------------|-------------------------------|--|------------|--------------------------|
| Presentation     | Kenedy Rotary Club            | Brenda Williams, AACOG                       | 7/25/2006  | Rotary Club members      |
| Presentation     | SAWS Brown Bag                | Heather Willden, AACOG<br>Debra Engler, SAWS | 8/3/2006   | SAWS Employees           |
| Presentation     | SAMA Environmental Committee  | Brenda Williams, AACOG                       | 9/15/2006  | Manufacturers            |
| Presentation     | NEISD Transportation Dept. #1 | Heather Willden AACOG                        | 11/14/2006 | NEISD School Bus Drivers |
| Presentation     | NEISD Transportation Dept. #2 | Heather Willden AACOG                        | 11/14/2006 | NEISD School Bus Drivers |
| Presentation     | NEISD Transportation Dept. #3 | Heather Willden AACOG                        | 11/15/2006 | NEISD School Bus Drivers |
| Presentation     | NEISD Transportation Dept. #4 | Heather Willden AACOG                        | 11/15/2006 | NEISD School Bus Drivers |

**5. School - Related Education**

| Type of Outreach | Subject   | Contact Persons w/Organizations   | Date      | Target Audience                             |
|------------------|---|---|-----------|---|
| Presentation     | AQHA Banners                                      | Brenda Williams, AACOG<br>Isabel Martinez, AACOG<br>Heather Willden, AACOG<br>Harvey Manning, Judson ISD                | 7/24/2006 | Judson ISD Admin                            |
| Event            | Candlewood Elementary Meet the Teacher Night      | Amber Mayne, AACOG<br>Heather Willden, AACOG  | 8/11/2006 | Candlewood parents, students, teachers      |
| Presentation     | AQHA Banners                                      | Brenda Williams, AACOG<br>Isabel Martinez, AACOG<br>Amber Mayne, AACOG<br>Heather Willden, AACOG<br>Becky Rendon, NEISD | 8/4/2006  | NEISD Nurses                                |
| Drop-Off         | Air Quality Materials                             | Isabel Martinez, AACOG<br>Heather Willden, AACOG  | 8/25/2006 | Students/Faculty                            |
| Drop-Off         | AQHA Program Materials                            | Heather Willden, AACOG  | 8/29/2006 | NEISD Nurses                                |
| Drop-Off         | AQHA Program Materials                            | Heather Willden, AACOG  | 8/29/2006 | NISD Nurses                                 |
| Drop-Off         | AQHA Program Materials                            | Heather Willden, AACOG  | 8/31/2006 | ECISD Nurses                                |
| Drop-Off         | AQHA Program Materials                            | Isabel Martinez, AACOG  | 9/1/2006  | EISD Administration (transportation)        |
| Drop-Off         | AQHA Program Materials                            | Heather Willden, AACOG  | 9/6/2006  | SWISD Nurses                                |
| Drop-Off         | AQHA Program Materials                            | Heather Willden, AACOG  | 9/6/2006  | SAISD Nurses                                |
| Drop-Off         | AQHA Program Materials                            | Heather Willden, AACOG  | 9/6/2006  | Harlandale ISD Nurses                       |
| Drop-Off         | AQHA Program Materials                            | Heather Willden, AACOG  | 9/6/2006  | Archdiocese for Catholic Schools            |
| Event            | Alamo Regional Academy of Science and Engineering | Heather Willden, AACOG<br>Amber Mayne, AACOG<br>Georgia Zannaras, AACOG   | 9/23/2006 | Teachers, Parents, Students                 |
| Mailing          | Effects of Common Air Pollutants posters          | Heather Willden, AACOG  | 9/26/2006 | Colonial Hills Elementary students/teachers |

**5. School - Related Education (Cont.)**

| Type of Outreach | Subject  | Contact Persons w/Organizations                  | Date       | Target Audience   |
|------------------|--|--|------------|---|
| Mailing          | Effects of Common Air Pollutants posters                                     | Heather Willden, AACOG                           | 9/26/2006  | Schertz Elementary students/teachers                                      |
| Event            | Air Quality and Student Health   | Heather Willden, AACOG                           | 9/26/2006  | SAISD District-Level PTA Mtg. (Tafolla MS)<br>Teachers, Students, Parents |
| Presentation     | Air Quality & Commute Solutions for Schools                                  | Heather Willden, AACOG<br>Amber Mayne, AACOG     | 10/4/2006  | Encino Park Elementary parents  |
| Drop-Off         | Commute Solutions for Schools (SCHOOLPOOL/WALKING SCHOOL BUS)                | Amber Mayne, AACOG                               | 10/5/2006  | Encino Park Elementary  |
| Pick-up          | AQHA Program Materials   | Heather Willden, AACOG                           | 9/6/2006   | Fort Sam Houston ISD  |
| Mailing          | AQHA Program Materials   | Heather Willden, AACOG                           | 9/6/2006   | Lackland AFB ISD  |
| Event            | STAC Workshop for School Nurses  | Heather Willden, AACOG                           | 10/14/2006 | School Nurses/Respiratory Therapists                                      |
| Mailing          | Curriculum Kits  | Isabel Gonzales, AACOG<br>Heather Willden, AACOG | 10/18/2006 | Teachers, Air Quality Education Specialists                               |
| Presentation     | Safe Routes to School @ Villareal Elementary (SchoolPool/Walking School Bus) | Amber Mayne, AACOG                               | 10/24/2006 | Parents, School Admin   |
| Presentation     | School Traffic Safety Summit (Downtown Public Library)                       | Amber Mayne, AACOG                               | 10/27/2006 | School District Admin, Transportation                                     |
| Presentation     | NW Homeschool Group  | Heather Willden, AACOG                           | 11/14/2006 | Children  |

**6. Events & Public Meetings**

| Type of Outreach | Subject                                | Contact Persons w/Organizations              | Date      | Target Audience         |
|------------------|--|--|-----------|-------------------------|
| Public Meeting   | RMA Quadrant Mtg. (Holmes High School) | Heather Willden, AACOG                       | 7/11/2006 | General Public          |
| Public Meeting   | RMA Quadrant Mtg. (COSA Toolyard)      | Heather Willden, AACOG                       | 8/2/2006  | General Public          |
| Event            | Seguin Health Fair                     | Brenda Williams, AACOG<br>Amber Mayne, AACOG | 8/9/2006  | Seguin Parents/Students |
| Public Meeting   | RMA Quadrant Mtg. St. Philip's)        | Heather Willden, AACOG                       | 8/15/2006 | General Public          |
| Public Meeting   | RMA Quadrant Mtg. (UTSA)               | Amber Mayne, AACOG<br>Heather Willden, AACOG | 8/22/2006 | General Public          |
| Drop-Off         | Government Canyon State Park           | Amber Mayne, AACOG                           | 8/30/2006 | General Public          |
| Drop-Off         | Missions Historical Park               | Amber Mayne, AACOG                           | 9/6/2006  | General Public          |
| Event            | NRC Conf.                              | Amber Mayne, AACOG                           | 9/9/2006  | General Public          |

**6. Events & Public Meetings (Cont.)**

| Type of Outreach | Subject   | Contact Persons w/Organizations   | Date        | Target Audience  |
|------------------|---|---|-------------|--|
| Public Meeting   | RMA Quadrant Mtg.<br>(South San Antonio HS)                               | Heather Willden, AACOG  | 9/12/2006   | General Public   |
| Public Meeting   | MPO Traffic safety and solutions workshop                                 | Amber Mayne, AACOG  | 9/19/2006   | General Public   |
| Mailing          | Effects of Common Air Pollutants posters                                  | Heather Willden, AACOG  | 9/26/2006   | UTHSC  |
| Mailing          | Effects of Common Air Pollutants posters                                  | Heather Willden, AACOG  | 9/26/2006   | MHS Health   |
| Mailing          | Effects of Common Air Pollutants posters                                  | Heather Willden, AACOG  | 9/26/2006   | Pulmonary Function Lab   |
| Mailing          | Effects of Common Air Pollutants posters                                  | Heather Willden, AACOG  | 9/26/2006   | Building Blocks Pediatrics<br>(Display in offices and Atascosa County Schools) |
| Event            | National Public Lands Day   | Heather Willden, AACOG  | 9/30/2006   | General Public, Olmos Basin Park   |
| Event            | Boy Scout Camp-O-Ree  | Isabel Martinez, AACOG<br>Heather Willden, AACOG  | 9/30/2006   | Boys, Middle and High school age   |
| Event            | City Year Environmental Day   | Georgia Zannaras, AACOG<br>Brenda Williams, AACOG   | 9/30/2006   | Students/Families  |
| Event            | Air Quality/Car Care/Walk & Roll Challenge<br>KTFM/KLEY dual Remote       | Amber Mayne, AACOG  | 10/6/2006   | General Public   |
| Event            | Air Quality & Asthma<br>Asthma Coalition of Texas Conference              | Heather Willden, AACOG  | 10/12-13/06 | Conference attendees, Hotel patrons  |
| Event            | Audubon society plant sale & Wildlife Festival (Mitchell Lake)            | Brenda Williams, AACOG<br>Georgia Zannaras, AACOG<br>Isabel Gonzales, AACOG<br>Heather Willden, AACOG | 10/14/2006  | General Public   |
| Event            | Hispanic Health Fair (Alamodome)  | Brenda Williams, AACOG<br>Isabel Gonzales, AACOG<br>Heather Willden, AACOG                            | 10/15/2006  | General Public   |
| Mailing          | Air Quality materials, including Effects of Common Air Pollutants posters | Heather Willden, AACOG  | 10/16/2006  | Lackland AFB   |
| Drop-Off         | 3rd Annual SafePlace Event  | Heather Willden, AACOG  | 10/21/2006  | women that are residence of the SafePlace safe house (Kids)                    |
| Event            | Bike Expo @ Calaveras Lake  | Brenda Williams, AACOG<br>Heather Willden, AACOG  | 10/21/2006  | Middle & High School age students  |
| Drop-Off         | COSA Community Center Materials for upcoming event                        | Heather Willden, AACOG  | 10/25/2006  | General Public (Children)  |

**6. Events & Public Meetings (Cont.)**

| Type of Outreach | Subject  | Contact Persons w/Organizations                                      | Date       | Target Audience           |
|------------------|--|--|------------|---------------------------|
| Event            | District 3 Family Services & Community Fair      | Amber Mayne, AACOG<br>Heather Willden, AACOG                         | 10/28/2006 | General Public            |
| Event            | Edgewood ISD Health Fair                         | Heather Willden, AACOG   | 11/4/2006  | General Public            |
| Event            | Harcourt Environmental Day                       | Brenda Williams, AACOG<br>Heather Willden, AACOG                     | 11/10/2006 | Harcourt Employees        |
| Event            | District 10 Fall Festival                        | Brenda Williams, AACOG<br>Heather Willden, AACOG                     | 11/11/2006 | General Public            |
| Event            | GIS Day -- Professionals                         | Amber Mayne, AACOG   | 11/14/2006 | General Public            |
| Event            | GIS Day -- Students                              | Amber Mayne, AACOG<br>Parviz Nazeem, AACOG<br>Steven Smeltzer, AACOG | 11/15/2006 | General Public (Students) |
| Event            | Texas Recycles Day                               | Georgia Zannaras, AACOG<br>Brenda Williams, AACOG                    | 11/15/2006 | Students                  |
| Event            | Christmas Along the Corridor - Pony Express Ride | Amber Mayne, AACOG<br>Brenda Williams, AACOG                         | 12/2/2006  | General Public            |

**7. Press Items and Proclamations**

| Type of Outreach | Subject   | Contact Persons w/Organizations  | Date       | Target Audience                          |
|------------------|---|--|------------|--|
| Press Conference | W&R Corporate Challenge Winner Cup Presentation   | Brenda Williams, AACOG<br>Heather Willden, AACOG<br>Gwen Schuler, COSA     | 7/19/2006  | Challenge Participants<br>General Public |
| PSA              | W&R Challenge Kickoff   | Heather Willden, AACOG<br>Amber Mayne, AACOG<br>KJ97 & TPR                 | 10/3/2006  | General Public                           |
| Press Conference | W&R Challenge Kickoff   | Heather Willden, AACOG<br>Brenda Williams, AACOG<br>Tiffany Pickens, AACOG | 10/3/2006  | Media, Participating Organizations Reps  |
| News Release     | POLLUTION REDUCTION: SAN ANTONIO SHEDS 200 LBS Walk & Roll Challenge Participants Log Over 58,000 Smart Miles; Reducing Over 200 lbs of Air Pollution | Heather Willden, AACOG   | 11/28/2006 | General Public                           |

**8. Website for Public Viewing**

| Agency/Company | Site Name   | How It Relates | URL   |
|----------------|-------------|----------------|---|
| AACOG          | Air Quality | AQ Info        | <a href="http://www.aacog.com/air/">http://www.aacog.com/air/</a> |



**8. Website for Public Viewing (Cont.)**

| Agency/Company    | Site Name                     | How It Relates  | URL   |
|-------------------|-------------------------------|---|---|
| AACOG             | Commute Solutions             | Reducing SOVs   | <a href="http://www.aacog.com/commutesolutions/">http://www.aacog.com/commutesolutions/</a>   |
| AACOG             | Adopt-a-School Bus            | Reduce pollution from school buses  | <a href="http://www.aacog.com/schoolbus/">http://www.aacog.com/schoolbus/</a>   |
| AACOG             | TERP                          | Grants for use of pollution reduction technologies                                    | <a href="http://www.aacog.com/terp/">http://www.aacog.com/terp/</a>   |
| AACOG             | ACAP                          | Business community commitment to AQ   | <a href="http://www.aacog.com/acap/">http://www.aacog.com/acap/</a>   |
| AACOG             | Walk & Roll Challenge         | Month-long challenge promoting walking, biking, carpooling/vanpooling, and busing     | <a href="http://www.walkandrollchallenge.com/">http://www.walkandrollchallenge.com/</a>   |
| AACOG             | Clean Cities                  | Promotes alternative fuels  | <a href="http://www.aacog.com/cleancities">http://www.aacog.com/cleancities</a>   |
| AACOG             | Kids Zone                     | Links and fun activities about AQ for kids  | <a href="http://www.aacog.com/aboutaacog/kidszone/">http://www.aacog.com/aboutaacog/kidszone/</a>   |
| AACOG             | Clean Air Plan                | Posting of the Clean Air Plan for SA region   | <a href="http://www.aacog.com/cap/">http://www.aacog.com/cap/</a>   |
| AACOG             | Cleaner Texas Cleaner World   |   | <a href="http://www.aacog.com/air/cleantexas/cleantexas.asp">http://www.aacog.com/air/cleantexas/cleantexas.asp</a>   |
| AACOG             | Conceptual Model              | Posting of report   | <a href="http://www.aacog.com/naturalresources/cm/042705_ConcModel2004.pdf">http://www.aacog.com/naturalresources/cm/042705_ConcModel2004.pdf</a>   |
| AACOG             | Emission Inventories          | Posting of San Antonio region air EI for 1996   | <a href="http://www.aacog.com/naturalresources/1996%20Emissions%20Inventory/1996EI_TOC.html">http://www.aacog.com/naturalresources/1996%20Emissions%20Inventory/1996EI_TOC.html</a>                           |
|                   |                               | Posting of San Antonio region air EI for 1999   | <a href="http://www.aacog.com/naturalresources/1999%20Emissions%20Inventory/AACOG1999EI_OnlineIndex.html">http://www.aacog.com/naturalresources/1999%20Emissions%20Inventory/AACOG1999EI_OnlineIndex.html</a> |
|                   |                               | Posting of San Antonio region air EI for 2002   | <a href="http://www.aacog.com/naturalresources/2002_NET_EI/">http://www.aacog.com/naturalresources/2002_NET_EI/</a>   |
| AACOG             | Emissions Trend Analysis 2005 | Posting of report   | <a href="http://www.aacog.com/naturalresources/pdffiles/082405_TrendAnalysis_Sept05.pdf">http://www.aacog.com/naturalresources/pdffiles/082405_TrendAnalysis_Sept05.pdf</a>                                   |
| AACOG             | Clean Air Plan                | Posting of plan for San Antonio Region  | <a href="http://www.aacog.com/cap/">http://www.aacog.com/cap/</a>   |
| AACOG             | AACOG regional newsletter     | Newsletter informing the region of events, happenings, etc.                           | <a href="http://www.aacog.com/newsletter/">http://www.aacog.com/newsletter/</a>   |
| AFP               | AQ & Trees                    | Information on trees in regards to AQ   | <a href="http://www.alamoforestpartnership.org/">http://www.alamoforestpartnership.org/</a>   |
| MPO               | Ozone/AQ                      | General information on ozone and AQ   | <a href="http://www.sametroplan.org/pages/Air_Quality/MPOozone.html">http://www.sametroplan.org/pages/Air_Quality/MPOozone.html</a>   |
| MPE               | Homepage                      | Energy Efficiency   | <a href="http://www.mp4e.info/">http://www.mp4e.info/</a>   |
| Build SA Green    | Homepage                      | Building energy efficient homes in San Antonio  | <a href="http://www.buildsagreen.org/">http://www.buildsagreen.org/</a>   |
| Solar San Antonio | Homepage                      | Solar Energy  | <a href="http://www.solarsanantonio.org/">http://www.solarsanantonio.org/</a>   |
| COSA              | Environmental Services        |   | <a href="http://www.sanantonio.gov/enviro/">http://www.sanantonio.gov/enviro/</a>   |
| CPS               | Rebates and Programs          | Programs to conserve energy, preserve the environment and save money on utility bills | <a href="http://www.citypublicservice.com/content_listInternet.asp?element_id=13">http://www.citypublicservice.com/content_listInternet.asp?element_id=13</a>   |
| WOAI              | Air Quality                   | General information on AQ, ozone, & AQHA days   | <a href="http://www.woai.com/weather/story.aspx?content_id=B9E06E29-059F-4DAD-ACFA-9DF72655970F">http://www.woai.com/weather/story.aspx?content_id=B9E06E29-059F-4DAD-ACFA-9DF72655970F</a>                   |



**9. Informational Materials and Distributions for All Outreach Efforts through AACOG**

| Type of Outreach | Subject / Title                                  | Description   | Target Audience  |
|------------------|--|---|--|
| Brochure         | DCAT Asthma/Health                               | Information highlighting connection between asthma and air quality  | School Parents/Nurses                                  |
| Brochure         | AACOG Meeting Regional Challenges...             | AACOG brochure promoting entire organization  | Driving-age public                                     |
| Brochure         | When You Care for Your Car, You Care for the Air | TCEQ brochure, reward for participating in program  | Driving-age public                                     |
| Brochures/Form   | CARE   | Promote and recruit CARE program participants   | Carpoolers (those who have matched in program)         |
| Card             | Business Cards                                   | Point-of-Contact material   | General Public   |
| Childrens Item   | DCAT Stickers                                    | Encourages the maintenance of vehicles and protecting one's own health  | Children, families, teachers, parents, grandparents    |
| Childrens Item   | DCAT Stickers                                    | Encourages RideSharing  | Children, families, teachers, parents, grandparents    |
| Childrens Item   | DLAT Tattoos                                     | Temporary tatoos with "Drive Clean Across Texas" on them  | Children   |
| Childrens Item   | Tex & Dot & the Clean Air Crew                   | DCAT/TCEQ activity/coloring book for children, newest edition   | Elementary-age children                                |
| Banner           | Air Quality Health Alert Banner                  | Flag for organizations to purchase and then hang during AQHA days   | Business/Organizations                                 |
| Flyer            | Walk & Roll Challenge                            | Promoted Events   | General Public   |
| Flyer            | AQI  | Informational handout (Eng/Span) on Air Quality Index   | General Public   |
| Flyer            | Do Your Share...                                 | 10 tips for improving air quality   | General Public   |
| Flyer            | Spring Tips                                      | "It All Adds Up to Cleaner Air" - quick tips to reduce air pollution during the spring                        | General Public   |
| Flyer            | Guia de Calidad del Aire para el Ozono           | Ozone Information piece, in Spanish   | General Spanish-Speaking Public                        |
| Flyer            | We'd Love To Visit...                            | Promotes AACOG program presentations  | General Public, organization members                   |
| Flyer            | Alamo Area Clean Air Partnership                 | Program Description & Promotion   | Businesses   |
| Flyer/Form       | School Commute Solutions                         | Participation form to join program  | K-12 parents/Teachers/Principals                       |
| Form             | Carpool/Bike Buddies Sign-Up                     | Participation form to join program  | General Driving-age public                             |
| Poster           | Air Pollution Gremlins                           | TCEQ poster - 6 Gremlin characters with the six primary air pollutants (e.g. Odious Ozone), English & Spanish | Teachers, Elementary-age to Middle School age children |
| Poster           | DCAT Ollie's Air Quality Index Poste             | DCAT poster - promoting air quality to students, English & Spanish  | Teachers, Elementary-age children                      |

**9. Informational Materials and Distributions for All Outreach Efforts through AACOG (Cont.)**

| Type of Outreach   | Subject / Title                         | Description   | Target Audience                         |
|--------------------|---|---|---|
| Poster             | DCAT Care for Our Air                   | DCAT poster - promoting air quality to students, English & Spanish                        | Teachers, Elementary-age children       |
| Promotional Item   | Adopt-a-School Bus Bookmark             | Encourage cleaner school buses  | Elementary-age children                 |
| Promotional Item   | Air Care Kit                            | DCAT promotional item, reward for participating in program                                | Driving-age public                      |
| Promotional Item   | AQHA Magnet                             | AQHA contact information  | General Public                          |
| Promotional Item   | Clean Air Drive Fans                    | Hand fan with Air Quality tips  | General Public                          |
| Promotional Item   | Commute Solutions Lanyards              | Incentive item to encourage program participation (e.g. reward for carpoolers)            | Driving-age general public              |
| Promotional Item   | Clean Air Driver Magnet                 | Incentive item to encourage program participation (e.g. reward for no idle pledge takers) | Driving-age general public              |
| Promotional Item   | Commute Solutions Lunch Sacks           | Incentive item to encourage program participation (e.g. reward for carpoolers)            | Driving-age general public              |
| Promotional Item   | Commute Solutions Squeeze Car           | Incentive item to encourage program participation (e.g. reward for carpoolers)            | Driving-age general public              |
| Promotional Item   | Commute Solutions Travel Mug            | Incentive item to encourage program participation (e.g. reward for carpoolers)            | Driving-age general public              |
| Promotional Item   | DCAT Notepads                           | Provides quick tips to improve air quality  | General Public                          |
| Promotional Item   | No Idle Pledge Pens                     | Reminds public to avoid idling  | General Public                          |
| Promotional Item   | Key Ring with Tire Pressure Gauge       | Encourages tire pressure maintenance and improved gas mileage                             | General public, driving age             |
| School Item        | Air Quality & Transportation Curriculum | Compilation of lessons/activities adapted for region.                                     | Teachers/School Admin./Parents          |
| School Item        | Nurse Door Sign (AQHA)                  | Alert students/teachers fo AQHA   | Teachers/School Admin./Students         |
| School Item        | School Toolkit: Ozone 101               | Toolkit to describe ozone pollution and AACOG services/programs                           | Teachers/School Admin./Students/Parents |
| School Item        | Nurse Door Sign (Kids Clean-up the Air) | Provides quick tips to improve air quality  | Teachers/School Admin./Students         |
| Video              | DCAT Clean Air Crew                     | DCAT cartoon, 6 minute video featuring Tex & Dot & the Clean Air Crew                     | Elementary-age Children & Teachers      |
| Informational Item | ACAP "Fortune Cookie"                   | Paper fortune cookie listing various tips to improve fuel economy and air quality         | Drivers                                 |
| Flyer              | ACAP Take Out Air Pollution "Dollar"    | Dollar-shaped flyer referencing the Take Out Air Pollution menu and web site              | General Public                          |

# *Alamo Area Council of Governments 2006 Outreach Campaign Summary Air Quality Programs*

*Adopt-A-School Bus  
Air Quality Health Alert Program  
Alamo Clean Air Partnership  
Alamo Clean Cities Coalition  
Commute Solutions*

For more information about AACOG's air quality outreach programs, visit

[www.cleanairdrive.com](http://www.cleanairdrive.com)



[www.cleanairdrive.com](http://www.cleanairdrive.com)



## Background

The Alamo Area Council of Governments supports a number of air quality education and outreach programs to inform the community of local air pollution issues. These issues include the consequences of high pollution levels and measures we can all take to improve our air quality. The outreach programs target a range of audiences: local governments, industries, businesses, schools, and the general public.

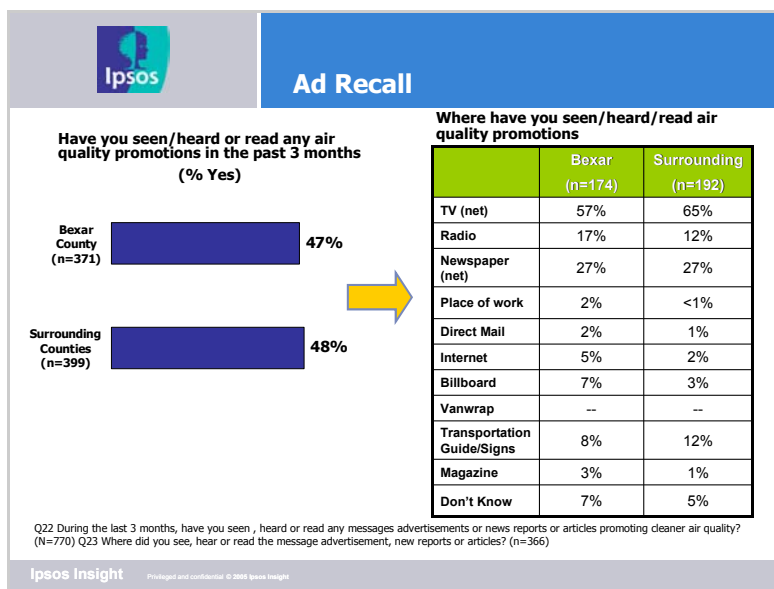
During 2006, a primary focus of the educational campaign was the effect of ground-level ozone on health and measures we can take to protect pollution-sensitive groups. The campaign also focused on the short opportunity we have as a region to meet the U.S. Environmental Protection Agency's (EPA) air quality standard for ground-level ozone. EPA will analyze regional ozone measurements for 2005, 2006, and 2007 to determine whether local, voluntary efforts to reduce air pollution are successful. Since the largest single source of man-made emissions produced locally are the result of operating on-road vehicles, the primary outreach message highlighted throughout the year emphasized the benefits of driving less and performing regular vehicle maintenance on private and fleet vehicles.

In preparation for the 2006 outreach campaign, Natural Resources staff contracted with a marketing research company to determine, among other issues, how wide a geographical area the air quality messages were dispersed and which venues most effectively delivered the messages. The survey was conducted in the fall of 2005 and revealed that, indeed, the messages were reaching beyond San Antonio/Bexar County and into the more rural surrounding counties. The survey also revealed people were much more likely to remember messages aired on television than any other media type.

## Research Results

In answer to the question, "Have you seen/heard or read any air quality promotions in the past 3 months," 47% of the respondents in Bexar County answered yes; similarly 48% of the respondents in 11 surrounding counties answered yes.

When asked "Where have you seen/heard/read air quality promotions," the most common answer was television. In Bexar County, 57% of the respondents recalled watching ads on television compared to 65% in surrounding counties.





# 2006 Highlights

This year was a year of progress for the air quality outreach/education programs, as described in more detail on the following pages. Many of the accomplishments were achieved with support and collaboration from member governments and other organizations. Highlights of the 2006 outreach projects and campaigns are listed below.

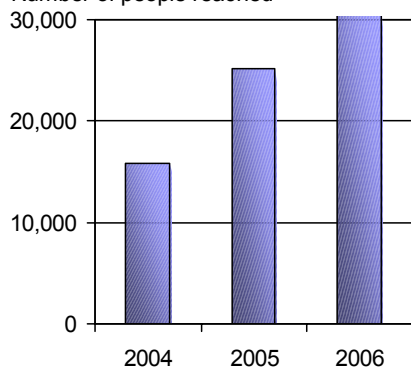
## First, some "firsts"

- ♦ AACOG, in collaboration with the MPO, held the first Walk & Roll Corporate Challenge in June. The number of vehicle miles reduced by participating businesses and agencies during the Challenge = 216,139.
- ♦ Alamo Area Clean Cities Coordinator, Isabel Martinez, received recognition for "Coordinator Excellence" at the Clean Cities Coordinators meeting in Washington, D.C. on March 6, 2006.
- ♦ AACOG conducted the first Environmental Stewardship Awards and presented certificates to six organizations in recognition of their efforts to improve air quality in the San Antonio region.



## 2006 Statistics

Number of people reached



- ♦ The number of people reached through presentations and events in 2006: 30,408 — an increase of 21% over 2005.
- ♦ The number of air quality brochures and other outreach/educational materials distributed in 2006: 24,738 — an increase of 25% over 2005.
- ♦ Participation in the Alamo Clean Air Partnership grew 100% in 2006.
- ♦ AACOG distributed over 500 Air Quality Health Alert banners, 400 of which were distributed to area schools. (See the Air Quality Health Alert page for details).
- ♦ The Certified Auto Ride Home in an Emergency (CARE) program grew by nearly 60 participants in 2006. Between 2000 and 2005, nine people registered to participate.
- ♦ The ozone season kickoff event was held in conjunction with CPS Energy's Live Green Fest in April. The combined event, Live Green Fest/Clean Air Drive, attracted more than 4,000 people, making it the most successful kickoff event in the history of the Alamo region's Commute Solutions program.



*The Live Green Fest/Clean Air Drive event at Eisenhower Park drew a crowd of more than 4,000.*

**US EPA ARCHIVE DOCUMENT**

During the year, air quality programs were promoted through events/exhibits, presentations, workshops, distribution of materials, and work with the media. Because newspapers, radio, and television can reach such large and diverse audiences, outreach efforts often included media participation. Media participation was encouraged by developing and distributing nine press releases; conducting or assisting with eight press conferences in conjunction with major air quality announcements; requesting and participating in an editorial board meeting with San Antonio Express-News staff; and distributing media packages — *Ozone 101 for the San Antonio Region* — to local media representatives.

[illegible][illegible]

## Paid Advertising

The Commute Solutions program provides some funding for

A fall 2005 survey showed that television is the most effective means of delivering air quality messages; hence, television played a major role in the 2006 advertising campaign. In addition, radio was used extensively to target specific audiences. Examples include the Hispanic community (through KLEY-FM) and young drivers (through KISS-FM).

# Marketing Media Schedule

The 2006 advertising campaign was broadcast using a variety of media: television, radio, newspaper, and outdoor billboards. Advertising was scheduled to maximize the number of air quality messages aired during months when ground-level ozone peaks and to promote air quality outreach events conducted in the fall.

Texas Transportation Institute's (TTI) Drive Clean Across Texas (DCAT) program also purchased radio and television air time in the San Antonio region. DCAT's campaign ran in June and August 2006. To maintain consistency and reinforce DCAT's air pollution messages, AACOG aired the TTI-developed ads as well and scheduled run times for weeks between and after their June and August campaigns.

AACOG staff sought in-kind promotion as another means of maximizing the advertising budget. For the \$33,485 investment in paid advertising, AACOG received \$53,420 in added value promotions. In addition, a number of stations ran public service announcements (PSAs) with air quality messages.



*Drive Clean Across Texas' Billboard Message*

|                     | June |    |    |    | July |    |    |    |    | August |    |    |    | September |    |    |    | October |   |    |    |    | November |    |    |    |
|---------------------|------|----|----|----|------|----|----|----|----|--------|----|----|----|-----------|----|----|----|---------|---|----|----|----|----------|----|----|----|
| Media               | 5    | 12 | 19 | 26 | 3    | 10 | 17 | 24 | 31 | 7      | 14 | 21 | 28 | 4         | 11 | 18 | 25 | 2       | 9 | 16 | 23 | 30 | 6        | 13 | 20 | 27 |
| Radio               |      |    |    |    |      |    |    |    |    |        |    |    |    |           |    |    |    |         |   |    |    |    |          |    |    |    |
| English             |      |    |    |    |      |    |    |    |    |        |    |    |    |           |    |    |    |         |   |    |    |    |          |    |    |    |
| Spanish             |      |    |    |    |      |    |    |    |    |        |    |    |    |           |    |    |    |         |   |    |    |    |          |    |    |    |
| Outdoor             |      |    |    |    |      |    |    |    |    |        |    |    |    |           |    |    |    |         |   |    |    |    |          |    |    |    |
| Billboards          |      |    |    |    |      |    |    |    |    |        |    |    |    |           |    |    |    |         |   |    |    |    |          |    |    |    |
| Television          |      |    |    |    |      |    |    |    |    |        |    |    |    |           |    |    |    |         |   |    |    |    |          |    |    |    |
| English             |      |    |    |    |      |    |    |    |    |        |    |    |    |           |    |    |    |         |   |    |    |    |          |    |    |    |
| Spanish             |      |    |    |    |      |    |    |    |    |        |    |    |    |           |    |    |    |         |   |    |    |    |          |    |    |    |
| Internet            |      |    |    |    |      |    |    |    |    |        |    |    |    |           |    |    |    |         |   |    |    |    |          |    |    |    |
| Television stations |      |    |    |    |      |    |    |    |    |        |    |    |    |           |    |    |    |         |   |    |    |    |          |    |    |    |
| Radio stations      |      |    |    |    |      |    |    |    |    |        |    |    |    |           |    |    |    |         |   |    |    |    |          |    |    |    |

Purchased by AACOG

PSAs

Purchased by Drive Clean Across Texas



*2006 Advertising Campaign Schedule*

## Added-value Opportunities

Added-value opportunities, advertising spots or activities added to a primary advertising package, increased the value of the marketing campaign by \$53,420. These opportunities included the following:

### Radio

KELZ-FM

106.7—Young adult

Added value with advertising package: \$3,500

Added value with participation in Hispanic Health Fair: \$1,000

KISS-FM

99.5—Young adult

Added value with advertising package: 90 live PSAs valued at \$22,500

KONO—AM/FM

101.1—25 to 54 age group

Added value with advertising package: 39 (:60) commercials valued at \$4,620

KTFM/KLEY

KTFM 94.1—Adults 25-54

KLEY 95.7 FM, 1250 AM—Hispanic adults 25-54

Added value with advertising package including dual-station remote: \$13,200

### Television

KSAT-TV

Added value with advertising package: \$8,100





# Adopt-A-School Bus Program

Goals: (1) decrease emissions associated with operating school buses and dropping off/picking up students, and (2) garner interest in the Green Patrol program from area schools.

## 2006 Highlights

### School Bus Workshop

AACOG's Adopt-A-School Bus (AASB) administrator collaborated with Austin's AASB program coordinator to conduct a Clean School Bus workshop in October 2006. School district transportation personnel from the San Antonio and Austin areas were invited to attend and hear presentations on technologies and fuels that reduce school bus emissions. Emissions from idling school bus engines were also addressed. This successful workshop attracted approximately 80 school transportation personnel from the two regions.

### Green Patrol

Camelot Elementary (North East ISD) became the first school in the AACOG region to initiate a "Green Patrol." The Green Patrol program — part of the Adopt-A-School Bus campaign — encourages school bus drivers and parents to turn off their vehicle engines when picking up and dropping off students. The program includes an educational component that addresses the air quality benefits of reducing emissions associated with engine idling.

In 2006, staff conducted the following activities as part of the pilot program:

- ◆ Presented and deputized school's Safety Patrol to take on the tasks of Green Patrol
- ◆ Distributed signs, Green Patrol safety vests, and buttons
- ◆ Presented anti-idling program to school's faculty
- ◆ Performed emissions inventory survey to estimate the number of idling vehicles at the school
- ◆ Created a letter for the parents explaining the purpose of the program

Staff will work with Camelot Elementary to officially kick off the Green Patrol program in April 2007.

Participation as of December 2005: 0

Participation as of December 2006: 1

*AACOG staff will increase program promotion through the participating idle reduction school districts.*

### Idle Reduction

Inspired by the Walk & Roll Corporate Challenge Project Officer Rally, Edgewood ISD chose to reduce emissions by participating in the Idle Reduction Campaign. Edgewood ISD implemented a no idling policy for its school bus fleet. Edgewood ISD also reworked bus routes for increased efficiency and to minimize miles driven. AACOG staff provided an anti-idling workshop to the drivers, educating the importance of idle reduction and their students' health.



### Green Patrol Program Materials

*Left, No Idle Zone sign for Green Patrol to display at student pick-up. Right, Green patrol button and sticker students wear while on duty.*

# Alamo Clean Air Partnership

Goal: Promote adoption of voluntary emission reduction measures among the regions' industries, businesses, government agencies, and other organizations.

## 2006 Highlights

### Greening Your Business Seminar

On February 1, 2006, the AACOG's Alamo Clean Air Partnership (ACAP) program organized and conducted a "Greening Your Business" seminar at the Greater San Antonio Chamber of Commerce. The purpose of the workshop was to provide participants with information on methods they could adopt within their organizations to improve air quality *and* save money.

H-E-B Manager of Environmental Affairs, Susan Ghertner delivered the keynote address by describing the highly successful programs the grocery chain implemented to improve the environment and save their company a substantial amount of money.

Number of participants: 35

### Walk & Roll Corporate Challenge

The ACAP program sponsored a new Walk & Roll event in 2006 — the Walk & Roll Corporate Challenge.



*Sally Villareal, TXDoT Human Resources Specialist and Clay Smith, TXDoT Director of Transportation Planning and Development accept the 2006 Corporate Challenge cup on behalf of TXDoT.*

Area businesses were encouraged to promote carpooling and other alternative commuting measures to their employees during the month of June. Over 500 employees from twelve participating organizations logged 216,139 "smart miles" (commuting by carpooling, vanpooling, walking, riding a bicycle, or riding the bus) in June, reducing ozone-forming air pollution emissions by approximately 800 pounds.

The Texas Department of Transportation won the 2006 Corporate Challenge by achieving an average of 36 miles per employee during the month of June.

The primary goals of the Challenge were to promote better transportation and improve air quality in our region.

Number of ACAP members as of December 2005: 8

Number of ACAP members as of December 2006: 16

### Greening Your Business

#### Improving Our Air and Your Profit\$

Join us on Wednesday, February 1, 2006 from 9:00 to 11:00 a.m. for an informative seminar at The Greater San Antonio Chamber of Commerce (602 E. Commerce Street, San Antonio, 78205). You'll find out how local companies and organizations develop win-win projects that benefit our quality of life and their bottom line.

Seating is limited. RSVP by calling Brenda Williams at (210) 362-5246 or sending an e-mail to [bwilliams@aacog.com](mailto:bwilliams@aacog.com).

Watch this space for additional details:  
[www.aacog.com/air/GreeningYourBusiness](http://www.aacog.com/air/GreeningYourBusiness)



**Find out how HEB saved money, reduced air pollution, and received positive local and national recognition for environmental leadership, all at the same time.**

**Question:** Which San Antonio companies discovered ways to improve our environment while they saved money?

**Answer:** Members of the Alamo Clean Air Partnership (ACAP). The ACAP membership includes HEB Grocery Company, Raba-Kistner Consultants, Inc., San Antonio Water System, USAA, Valero Energy Corporation, the City of San Antonio, and others.

# Alamo Area Clean Cities Coalition

Goals: Improve air quality and economic security by reducing the use of petroleum-based fuels used to power on-road and off-road fleets in the region.

## 2006 Highlights

### Re-designation Ceremony

Every five years Clean Cities coalitions are required to renew their commitment to the federal program's initiatives. In accordance with the program requirement, the Alamo Area Clean Cities Coalition held their five-year-anniversary re-designation ceremony in March 2006. The Coalition Coordinator used the opportunity to promote the Clean Cities program and encourage the use of alternative fuels/vehicles, hybrid-electric vehicles, and idle reduction technologies.

Number of participants: 28

### Slash Your Fuel Costs Workshops

AACOG's "Greening Your Business" seminar provided the impetus to conduct a series of workshops with a similar theme: improving air quality can also improve a company's bottom line. These workshops focused on specific money-saving measures to reduce air pollution. The Clean Cities Coordinator conducted three "Slash Your Fuel Costs" workshops targeting large fleet operators in the San Antonio area. The main speaker, Master Mechanic Franz Hofmann, presented tips on vehicle operation and maintenance that significantly improve fuel economy.

Number of participants: 39

### New Ethanol Station—H-E-B Grocery Stores

The Alamo Area Clean Cities Coalition supported H-E-B's efforts to increase the availability of E85 in Texas and creating an ethanol corridor along I-35. One of the first H-E-B stores to offer the cleaner-burning alternative fuel is in Schertz. AACOG staff participated in H-E-B's August 2006 press conference which featured AACOG's Executive Director, Al Notzon, pumping the first gallon of ethanol into his vehicle.



*Mr. Al Notzon, AACOG Executive Director, filling-up with ethanol at H-E-B's new E85 station in Schertz, Texas.*

# Air Quality Health Alert Program

Goals: Increase participation in the program and improve the distribution process.

## Improvements to the Notification Process

Prior to the start of ozone season 2006, AACOG began the process of adopting a new notification system — ScanUSA — to distribute Air Quality Health Alerts. ScanUSA is a community alert network that “allows local law enforcement and public safety agencies to send alerts to the PCs, cell phones and PDAs of their neighborhood and local residents.” Prior to the 2006 ozone season, notifications could only be sent by fax or e-mail. ScanUSA improves the distribution process by providing a wider range of methods to receive alerts. The City of San Antonio was instrumental in promoting the new notification system.



*The AQHA logo is displayed whenever an alert is issued to encourage citizens to take appropriate actions.*

## Adopt-A-Banner Program

The Air Quality Health Alert (AQHA) notification program was jump-started early in the year when City of San Antonio Councilman Chip Haass (District 10) offered to purchase Air Quality Health Alert banners for area schools. With the support of other City council districts, nearly 400 San Antonio schools received banners to display on Air Quality Health Alert days. AACOG's Natural Resources Department distributed the banners to school nurses or other school staff and used the

opportunity to provide air quality educational materials to participating institutions.



*The AQHA Banner is hung when an alert is called. Schools hang the banner in prominent locations outside the school to alert students, faculty, and staff, as well as parents.*

Between June and December 2006, all San Antonio schools had enrolled in the AQHA notification program and AACOG staff had provided schools the following:

- ♦ AQHA banner (purchased by the City of San Antonio)
- ♦ Laminated AQHA sign for school nurse's door
- ♦ Laminated *Kid's Tips* sign
- ♦ Posters (English and Spanish versions) *Health Effects of Common Air Pollutants*
- ♦ School Toolkit providing information about air quality in the San Antonio region, the impact of air pollution on sensitive groups such as children, and ways to improve air quality.

Number of schools participating in AQHA program: 420

Note: Comal ISD schools began participating in the program November 2006.



# Commute Solutions

Goals: Improve carpool matching process and increase the use of alternatives modes of commuting (carpooling, vanpooling, walking, riding the bus, and riding a bicycle)

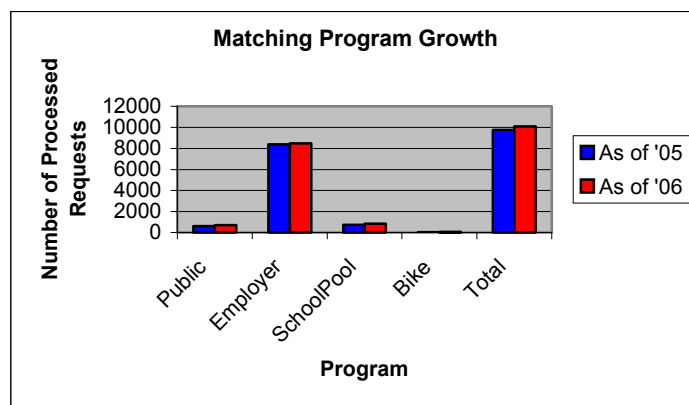
## 2006 Media Campaign

Details of the 2006 media campaign were presented on page 5 of this report. Highlights of the campaign include:

- ♦ Through collaboration with Drive Clean Across Texas, air quality advertisements were aired continuously in the San Antonio region from June—November 2006
- ♦ Media outlets were selected to ensure as wide and diverse an audience as possible and include:
  - ♦ Radio: KELZ (plus web site ads), KONO (plus web site ads), KISS, and KTFM/KLEY
  - ♦ Television: KSAT (plus web site ads)
  - ♦ Print Tags: Seguin Gazette, New Braunfels Herald-Zeitung,

## Carpool Program

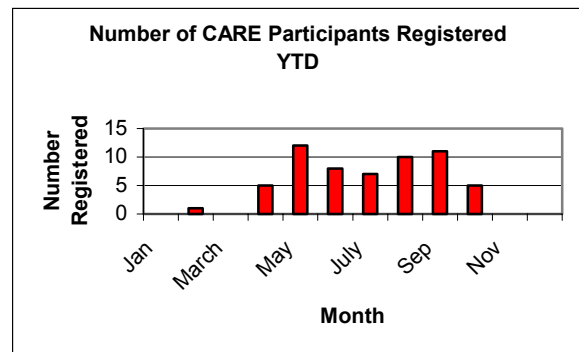
Carpooling provides many benefits for the commuter and our air. AACOG's Commute Solutions program provides free matching services for the San Antonio Region. Those interested in sharing a ride can register under the employer pool (specific company destination), the SchoolPool (elementary through high school), the public pool, or the Bike Buddies program. AACOG staff determines the best available matches according to home and destination coordinates.



All three carpool programs combined show a 92% success matching rate average. To encourage program participation, AACOG staff raffled a free Texas Independent Automotive Association (TIAA) oil change gift certificate each month during Ozone Season.

## Certified Auto Ride in an Emergency (CARE)

The fear of being "stuck" or a lack of flexibility can often deter individuals from carpooling or utilizing public transit. AACOG and VIA sponsor a guaranteed ride home program to overcome this obstacle and make ride sharing more convenient. For \$5 per year, each member receives four free taxi rides up to 30 miles, one way within the AACOG region. In the event of an emergency or an unplanned late day at work, participants may use a CARE voucher for a free ride home. The CARE program began in 2000 with only 9 members from 2000-2005. The program has seen great success this year with 59 new participants.



## 2006 Event List

During the year, AACOG staff participated in the following events:

| Date      | Outreach Type | Venue                               | Date       | Outreach Type | Venue   |
|-----------|---------------|-------------------------------------|------------|---------------|---|
| 1/20/2006 | Presentation  | Herff Elementary                    | 8/9/2006   | Exhibit       | Seguin Health Fair                                |
| 2/1/2006  | Presentation  | Greater SA Chamber of Commerce      | 8/11/2006  | Exhibit       | Candlewood ES Teacher Night                       |
| 2/4/2006  | Exhibit       | Arbor Day Event                     | 8/15/2006  | Exhibit       | RMA Quadrant meeting                              |
| 2/22/2006 | Exhibit       | Bonnie Raitt Concert                | 8/22/2006  | Exhibit       | RMA Quadrant meeting                              |
| 2/25/2006 | Exhibit       | Earthwise Living Day                | 9/9/2006   | Exhibit       | NRC Neighborhood Conference                       |
| 3/16/2006 | Presentation  | TIAA Alamo Chapter                  | 9/15/2006  | Presentation  | SAMA  |
| 3/25/2006 | Event         | Clean Cities Redesignation          | 9/19/2006  | Exhibit       | MPO Traffic Safety and Solutions workshop         |
| 3/27/2006 | Presentation  | Homeschool Environmental Grp        | 9/23/2006  | Exhibit       | Alamo Regional Academy of Science and Engineering |
| 3/31/2006 | Exhibit       | Basura Bash                         | 9/26/2006  | Exhibit       | SAISD district-level PTA meeting                  |
| 4/8/2006  | Event         | Live Green Fest/ Clean Air Drive    | 9/30/2006  | Exhibit       | National Public Lands Day                         |
| 4/19/2006 | Exhibit       | Earth Day Event at SAC              | 9/30/2006  | Exhibit       | Boy Scout Camp-O-Ree                              |
| 4/20/2006 | Exhibit       | Earth Day Event at NW Vista College | 9/30/2006  | Exhibit       | City Year Environmental Day                       |
| 4/22/2006 | Exhibit       | Earth Day Event at Woodlawn Lake    | 10/4/2006  | Presentation  | Encino Park Elementary                            |
| 4/26/2006 | Exhibit       | Earth Day Event at UTSA             | 10/6/2006  | Radio Remote  | G.M. Automotive                                   |
| 5/1/2006  | Exhibit       | Earth Day Event at TxDOT            | 10/12/2006 | Exhibit       | Asthma Coalition of Texas conference              |
| 5/12/2006 | Presentation  | WaterFest - Student Day             | 10/14/2006 | Exhibit       | STAC Nurse Workshop                               |
| 5/13/2006 | Exhibit       | WaterFest                           | 10/14/2006 | Exhibit       | Audubon Society Plant & Wildlife Festival         |
| 5/13/2006 | Exhibit       | Walk & Roll Fest                    | 10/15/2006 | Exhibit       | Hispanic Health Fair                              |
| 5/18/2006 | Event         | Walk & Roll Corporate Officer Rally | 10/24/2006 | Presentation  | Villareal Elementary                              |
| 5/19/2006 | Presentation  | Sr. Citizen Advisory Council        | 10/21/2006 | Exhibit       | Bike Expo @ Calaveras Lake                        |
| 5/20/2006 | Event         | Air Quality Health Fair             | 10/27/2006 | Presentation  | School Traffic Safety Summit                      |
| 5/23/2006 | Exhibit       | Lackland Safety Day                 | 10/28/2006 | Exhibit       | District 3 Family Services & Community Fair       |
| 6/5/2006  | Exhibit       | Harcourt Environmental Day          | 11/4/2006  | Exhibit       | Edgewood ISD Health Fair                          |
| 6/15/2006 | Event         | GM Tour                             | 11/10/2006 | Exhibit       | Harcourt Environmental Day                        |
| 7/11/2006 | Exhibit       | RMA Quadrant meeting                | 11/11/2006 | Exhibit       | District 10 Fall Community Services Fair          |
| 7/24/2006 | Presentation  | Judson ISD ERC                      | 11/14/2006 | Presentation  | NEISD Transportation Department                   |
| 7/25/2006 | Presentation  | Kenedy Rotary Club                  | 11/14/2006 | Presentation  | NW Homeschooling Group                            |
| 7/29/2006 | Exhibit       | SA HERO Conference                  | 11/14/2006 | Exhibit       | GIS Day for Professionals                         |
| 8/2/2006  | Exhibit       | RMA Quadrant meeting                | 11/15/2006 | Exhibit       | GIS Day for Students                              |
| 8/3/2006  | Presentation  | SAWS Brown Bag                      | 11/15/2006 | Exhibit       | Texas Recycles Day                                |
| 8/4/2006  | Presentation  | NEISD Nurse Workshop                | 12/2/2006  | Exhibit       | Christmas Along the Corridor Event                |

## Coming Soon: Planning for 2007

### Fresh Air Friday

The first annual Fresh Air Friday event will take place March 30, 2007 in downtown San Antonio. This event will kick off ozone season, the new RideShare Rewards program, and the 2007 Walk and Roll Challenge. Employees are invited to walk to the event for lunch while enjoying the fresh air. Food vendor booths will sell lunch while local exhibitors will display air quality information as well as *green* options for living.

### RideShare Rewards

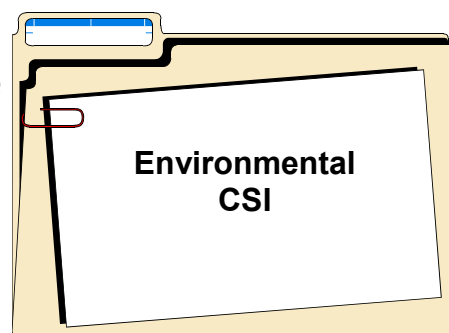
The RideShare Rewards is a project designed to increase participation in the employer pool program. According to a recent survey distributed by AACOG, results showed rewards/ incentives the top motivator people consider when deciding to carpool. RideShare Rewards will pay employees commuter points for every round-trip they carpool or vanpool to and from work. Participants register online under their place of employment, log the number of weekly carpool/ vanpool trips, and receive commuter points for every round trip over five miles. When they accumulate a certain number of points, they receive a gift card and qualify for the monthly prize that will be drawn randomly from the participant pool. We are currently seeking sponsorships from local businesses to provide the gift cards and monthly prizes.

### Carpool Matching Software

The Commute Solutions ride matching program has seen great success since it began in 2001. In order to keep up with matching demand, we will purchase a real-time matching system. Participants commuting in the San Antonio region will have the opportunity to register for rideshare matching on a new website. After entering required information, matching results and a map will be displayed immediately. This new system will greatly decrease turnaround time and provide more efficient program feedback. Through administrative features, we can better determine who is actively carpooling, the number of saved vehicle miles traveled, and the amount emissions reduced from ridesharing.

### New Educational Materials

New educational materials are under development that target the region's younger citizens. Environmental CSI can be used to teach middle-school students about air quality by solving the "dirty air crimes" and the Air Action Team program will target elementary-age students.



## Contact Information

### Questions about AACOG's air quality outreach programs?

Air Quality Health Alert Program

Alamo Adopt-A-School Bus Program

Alamo Area Clean Cities Coalition

Alamo Clean Air Partnership

Commute Solutions

#### **Contact us at**

(210) 227-7665

[igonzales@aacog.com](mailto:igonzales@aacog.com)

[www.cleanairdrive.com](http://www.cleanairdrive.com)



| Project Type | Agency    | Project Name              | From                             | To                   | Let Date | Compl. Date | VOC (lbs/day) | NOx (lbs/day) |
|--------------|-----------|---------------------------|----------------------------------|----------------------|----------|-------------|---------------|---------------|
| Sidewalk     | TxDOT     | Acme Road                 | Old Highway 90                   |                      | 1999     | 2001        | 0.069         | 0.058         |
| Sidewalk     | TxDOT     | Gevers St                 | IH 10                            | Southcross           | 2000     | 2001        | 0.242         | 0.204         |
| Sidewalk     | TxDOT     | Henderson Pass            | Thousand Oaks                    | Gold Canyon          | 2000     | 2001        | 0.202         | 0.170         |
| Sidewalk     | TxDOT     | IH 410                    | Bertetti                         | Marbach              | 2000     | 2000        | 0.050         | 0.042         |
| Bike/Ped     | TxDOT     | Mission Trails (Phase 3)  | E. Southcross                    | Mitchell St.         | 2000     | 2001        | 0.712         | 0.600         |
| Bike/Ped     | TxDOT     | Mitchell St.              | Probandt to                      | Roosevelt            | 2000     | 2003        | 0.104         | 0.088         |
| Bike/Ped     | TxDOT     | Nogalitos (LP 353)        | Zarzamora / New Laredo Hwy       | Surrey               | 2000     | 2003        | 0.235         | 0.198         |
| Bike/Ped     | TxDOT     | Probandt St.              | US 90                            | Mitchell             | 2000     | 2003        | 0.014         | 0.012         |
| Bike/Ped     | TxDOT     | Prue Rd                   | Laureate                         | Fredericksburg       | 2000     | 2002        | 0.065         | 0.054         |
| Bike/Ped     | TxDOT     | Rittiman                  | Austin Hwy (LP 368)              | Harry Wurzbach       | 2000     | 2002        | 0.124         | 0.105         |
| Bike/Ped     | TxDOT     | Timber Path Bikeway       | Les Harrison                     | Grissom Rd.          | 2000     | 2001        | 0.166         | 0.140         |
| Bike/Ped     | TxDOT     | Bitters Rd                | Broadway                         | Nacogdoches Rd.      | 2001     | 2003        | 0.282         | 0.237         |
| Bike/Ped     | TxDOT     | Callaghan                 | Hemphill                         | Culebra              | 2001     | 2003        | 0.266         | 0.225         |
| Bike/Ped     | TxDOT     | Coliseum Rd.              | East Houston St.                 | Gembler Rd.          | 2001     | 2004        | 0.123         | 0.104         |
| Bike/Ped     | TxDOT     | East Houston St.          | Walters                          | Onslow               | 2001     | 2003        | 0.054         | 0.045         |
| Bike/Ped     | TxDOT     | East Houston St.          | Onslow St.                       | Salado Creek         | 2001     | 2002        | 0.084         | 0.071         |
| Bike/Ped     | TxDOT     | Pearsall Rd (FM 2536)     | Loop 13 (Military Drive)         | IH 410               | 2001     | 2003        | 2.630         | 2.216         |
| Bike/Ped     | TxDOT     | Pecan Valley Dr           | J St. to                         | IH 10                | 2001     | 2003        | 0.049         | 0.041         |
| Bike/Ped     | TxDOT     | Pleasanton                | Moursund                         | Gillette             | 2001     | 2003        | 0.027         | 0.023         |
| Bike/Ped     | TxDOT     | Southcross                | WW White (LP 13)                 | Loop 410             | 2001     | 2003        | 0.209         | 0.176         |
| Bike/Ped     | TxDOT     | Uhr Lane                  | Higgins                          | Thousand Oaks        | 2001     | 2004        | 0.210         | 0.177         |
| Bike/Ped     | TxDOT     | New World                 | Crestway                         | Montgomery           | 2004     | 2004        | 0.050         | 0.042         |
| Sidewalk     | TxDOT     | New World                 | Montgomery Dr                    | Walzem Rd ( FM 1976) | 2004     | 2004        | 0.050         | 0.042         |
| Sidewalk     | Federal   | Alamo                     | Cedar                            | San Antonio River    | 2003     | 2003        | 0.031         | 0.026         |
| Sidewalk     | TxDOT     | W.W. White Rd. (Loop 13)  | Seale Road                       | IH-10                | 2004     | 2005        | 0.336         | 0.283         |
| Sidewalk     | TxDOT     | Grissom/Culebra (FM 471)  | SH 16                            | Loop 1604            | 2003     | 2004        | 2.040         | 1.719         |
| Sidewalk     | TxDOT     | Southcross Blvd.          | S. New Braunfels to S. Presa St. | S. Presa St.         | 2005     | 2004        | 0.107         | 0.090         |
| Sidewalk     | TxDOT     | Hunt Lane                 | Marbach to US 90                 | US 90                | 2004     | 2004        | 0.273         | 0.230         |
| Sidewalk     | Federal   | Isom                      | Ramsey                           | US 281               | 2004     | 2004        | 0.084         | 0.071         |
| Sidewalk     | COSA      | Roland (US 87)            | IH 10                            | Rigsby Avenue        | 2004     | 2005        | 0.100         | 0.084         |
| Sidewalk     | COSA      | SH 218 (Pat Booker Road)  | Loop 1604                        | FM 78                | 2004     | 2005        | 0.998         | 0.841         |
| Sidewalk     | COSA      | Sunset                    | Jones Maltsberger                | Teak                 | 2004     | 2005        | 0.135         | 0.114         |
| Sidewalk     | Bexar Co. | Kitty Hawk Rd             | Miller Rd.                       | Converse City Limits | 2004     | 2005        | 0.070         | 0.059         |
| Bikeway      | COSA      | UTSA to OLLU Corridor     | Houston St.                      | 24th St.             | 2004     | 2005        | 0.507         | 0.427         |
| Bikeway      | COSA      | Cincinnati                | St. Mary's University            | Navidad              | 2004     | TBDL        | 0.189         | 0.159         |
| Bikeway      | COSA      | Cincinnati / Ashby        | Navidad                          | North St. Mary's St. | 2004     | TBDL        | 0.189         | 0.159         |
| Bikeway      | COSA      | Alamo / Broadway Corridor | Josephine                        | The Alamo            | 2004     | TBDL        | 0.297         | 0.251         |
| Bikeway      | Bexar Co. | Crestway                  | Miller Road                      | New World            | 2004     | 2005        | 0.070         | 0.059         |
| Sidewalk     | Bexar Co. | New World                 | Crestway                         | Miller Road          | 2004     | 2005        | 0.026         | 0.022         |
| Bike racks   | COSA      |                           | Various Locations                |                      | 2004     | 2005        | 0.000         | 0.000         |

| Project Type  | Agency    | Project Name                    | From               | To                      | Let Date | Compl. Date | VOC (lbs/day) | NOx (lbs/day) |
|---------------|-----------|---------------------------------|--------------------|-------------------------|----------|-------------|---------------|---------------|
| Sidewalk      | COSA      | Clark                           | Southcross         | Hot Wells               | 2004     | 2008        | 0.073         | 0.062         |
| Sidewalk      | Bexar Co. | Crestway Drive                  | New World          | Windcrest City Limits   | 2004     | 2005        | 0.060         | 0.051         |
| Sidewalk      | COSA      | Hot Wells                       | IH 37              | New Braunfels           | 2004     | TBDL        | 0.016         | 0.013         |
| Sidewalk      | COSA      | E. Houston                      | Pine               | Walters                 | 2004     | 2006        | 0.060         | 0.050         |
| Bike Lane     | COSA      | Ingram                          | Callaghan          | Benrus                  | 2004     | TBDL        | 0.215         | 0.181         |
| Sidewalk      | COSA      | Blanco Road (FM 2696)           | Lockhill Selma     | West Avenue             | 2004     | TBDL        | 0.421         | 0.355         |
| Bike Lane     | Univ City | SH 218                          | Loop 1604          | FM 78                   | 2004     | 2004        | 0.928         | 0.782         |
| Sidewalk      | COSA      | Flores, S                       | 0.6 Mi N of Malone | Octavia                 | 2005     | 2006        | 0.191         | 0.161         |
| Sidewalk      | COSA      | Mayfield                        | Commercial         | Zarzamora               | 2005     | TBDL        | 0.024         | 0.020         |
| Sidewalk      | COSA      | McCullough                      | Basse              | RR Tracks               | 2005     | TBDL        | 0.087         | 0.073         |
| Sidewalk      | COSA      | Nakoma                          | @ US 281           | 4C                      | 2005     | TBDL        | 0.256         | 0.216         |
| Sidewalk      | COSA      | Woodlawn                        | Bandera            | Maiden 4C               | 2005     | TBDL        | 0.104         | 0.087         |
| Sidewalk      | COSA      | Sunset                          | Teak               | Broadway 4C             | 2005     | TBDL        | 0.103         | 0.086         |
| Sidewalk/bike | COSA      | Callaghan                       | Bandera            | Horseshoe Bend          | 2007     | 2008        | 0.414         | 0.349         |
| Bike Lane     | COSA      | SAC to CBD                      | Howard             | 4th                     | 2001     | 2001        | 0.082         | 0.069         |
| Bike Lane     | COSA      | Montana/Nevada                  | Cherry             | Meerscheidt             | 2001     | 2001        | 0.040         | 0.034         |
| Bike Lane     | COSA      | N.Zarzamora                     | Nogalitos          | Theo                    | 2001     | 2001        | 0.158         | 0.133         |
| Bike Lane     | COSA      | N. St. Mary's                   | Lexinton           | Huisache                | 2001     | 2001        | 0.199         | 0.168         |
| Bike Lane     | COSA      | Callaghan                       | Old Highway 90     | New HWY 90              | 2001     | 2001        | 0.128         | 0.108         |
| Bike Lane     | COSA      | S. Zarzamora                    | SW Loop 410        | IH 35                   | 2001     | 2001        | 0.338         | 0.285         |
| Bike Lane     | COSA      | Caliza                          | Encino Rio         | Evans Rd.               | 2001     | 2001        | 0.061         | 0.052         |
| Bike Lane     | COSA      | UTSA to SAC                     | Buena Vista        | San Pedro               | 1999     | 1999        | 0.299         | 0.252         |
| Bike Lane     | COSA      | Les Harrison                    | Culebra            | Dover Ridge             | 2000     | 2000        | 0.313         | 0.264         |
| Bike Lane     | COSA      | Josephine Grayson               | Broadway           | New Braunfels           | 2000     | 2000        | 0.085         | 0.072         |
| Bike Lane     | COSA      | Walters                         | Fair Ave.          | Rigsby Avenue           | 2000     | 2000        | 0.235         | 0.198         |
| Bike Lane     | COSA      | Villaret                        | Zarzamora          | Hwy 16                  | 2000     | 2000        | 0.074         | 0.062         |
| Sidewalk      | COSA      | Rice Reconstruction             | W. W. White        | Semlinger               | 2004     | 2005        | 0.033         | 0.028         |
| Sidewalk      | Comal Co. | New Braunfels                   | LP 337             | 0.8 KM N of Walnut Ave. | 2004     | 2005        | 0.197         | 0.166         |
| Bike path     | COSA      | Malone / Theo                   | Quintana           | Concepcion Park         | 2004     | TBDL        | 0.655         | 0.552         |
| Side walk     | COSA      | Gen McMullen                    | Roselawn           | Commerce                | 1999     | 1999        | 0.664         | 0.560         |
| Bike Path     | COSA      | Avenue B (Bicycle Lanes)        | Mulberry           | Brackenridge            | 2000     | 2000        | 0.095         | 0.080         |
| Bike Path     | COSA      | Montana Street Bike Lane        | Alamodome          | Walters                 | 2001     | 2001        | 0.018         | 0.016         |
| Bike Path     | COSA      | Villaret Bicycle Transportation | W. Villaret        | E. Villaret             | 2001     | 2001        | 0.107         | 0.090         |
| Bike Path     | COSA      | Zarzamora Bike Lane             | IH 35              | Loop 410                | 2001     | 2001        | 0.000         | 0.000         |
| Bike Path     | COSA      | Eagleland/Riverwalk Link        | Eagleland Drive    | Guenther Street Bridge  | 2006     | TBDL        | 0.021         | 0.018         |
| Sidewalk      | COSA      | Mckay                           | (400 Block)        | (500 Block)             | 2001     | 2001        | 0.008         | 0.006         |
| Sidewalk      | COSA      | Harvard Terrace                 | Yale               | University              | 2001     | 2001        | 0.001         | 0.001         |
| Side walk     | COSA      | Dell Place Drainage Project     | North Freeman      | (dead end)              | 2001     | 2001        | 0.000         | 0.000         |
| Sidewalk      | COSA      | Hardeman St Sidewalks           | Mesquite           | Hackberry               | 2001     | 2001        | 0.002         | 0.002         |
| Sidewalk      | COSA      | Gevers-IH 10                    | Gevers             | Southcross              | 2001     | 2002        | 0.131         | 0.110         |
| Sidewalk      | COSA      | New Braunfels                   | Rigsby             | Southcross/IH 37        | 2001     | 2001        | 0.278         | 0.234         |
| Sidewalk      | COSA      | Henderson Pass Sidewalks        | Thousand Oaks      | Gold Canyon.            | 2001     | 2001        | 0.818         | 0.689         |
| Sidewalk      | COSA      | Danbury Sidewalks:              | Nacogdoches        | Broadway                | 2002     | 2002        | 0.021         | 0.018         |

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|---------------|-----------------|---------------------------|---|-----------------------------------|----------|-------------|---------------|---------------|
| Sidewalk      | COSA            | Ray Bon Drive Sidewalks   | Eisenhauer                              | Village Haven                     | 2002     | 2002        | 0.031         | 0.026         |
| Sidewalk      | COSA            | New Braunfels             | IH 35                                   | Grayson                           | 2002     | 2002        | 0.068         | 0.057         |
| Sidewalk      | COSA            | Pedestrian Bridge         | War Horse                               | Trading Post                      | 2002     | 2002        | 0.001         | 0.000         |
| Sidewalk      | COSA            | Hoover Street             | Nogalitos                               | Charlotte                         | 2003     | 2003        | 0.003         | 0.002         |
| Sidewalk      | COSA            | 2003 NAMP Sidewalk        | Mccullough                              | Mulberry                          | 2004     | 2004        | 0.595         | 0.502         |
| Sidewalk      | COSA            | Navajo Area Streets       | (Navajo/Hutchins/Barlite)               | (Navajo/Hutchins/Barlite)         | 2004     | 2004        | 0.159         | 0.134         |
| Sidewalk      | COSA            | McCarty Sidewalks & Curbs | Lorene                                  | Blanco                            | 2004     | 2004        | 0.031         | 0.026         |
| Sidewalk      | COSA            | Harris Storm Drainage     | Alvarez                                 | (Glass/Cass/Hals tead)            | 2004     | 2005        | 0.038         | 0.032         |
| Sidewalk      | COSA            | Kono                      | Gembler                                 | Belgium                           | 2005     | 2006        | 0.026         | 0.022         |
| Sidewalk      | COSA            | Octavia                   | #63 Phase II                            | Part B                            | 2005     | 2005        | 0.103         | 0.087         |
| Sidewalk      | COSA            | La Manda                  | West Avenue                             | Buckeye                           | 2006     | 2006        | 0.006         | 0.005         |
| Sidewalk      | COSA            | Rosabell Street           | Culebra                                 | Inez                              | 2006     | 2006        | 0.006         | 0.005         |
| Sidewalk      | COSA            | Cincinnati                | Fredericksburg                          | IH 10                             | 2007     | 2005        | 0.019         | 0.016         |
| Sidewalk      | COSA            | Cornell                   | Brazos                                  | Colorado                          | 2007     | 2005        | 0.009         | 0.007         |
| Signal        | TxDOT           | US 281                    | At Borgfeld, Bulverde, Wilderness Oaks, | and Stone Oak Roads               | 2003     | 2004        | 3.797         | 2.327         |
| Signal        | Bexar Co.       | Foster Road               | Candlemeadow                            | 4C                                | 2005     | 2005        | 0.253         | 0.155         |
| Signal        | Bexar Co.       | Foster Road               | Summer Fest                             | 4C                                | 2005     | 2005        | 0.059         | 0.036         |
| Signal        | Comal Co.       | SH46                      | HEB driveway                            |                                   | 2001     | 2002        | 0.052         | 0.041         |
| Signal        | Comal Co.       | FM 725                    | County Line Rd                          |                                   | 2001     | 2002        | 1.003         | 0.788         |
| Signal        | Comal Co.       | FM 3009                   | FM 2252 in Garden Ridge                 |                                   | 2001     | 2002        | 0.575         | 0.452         |
| Signal        | New Braun.      |                           | Union                                   | Common                            | 2004     | 2004        | 0.075         | 0.059         |
| Signal        | Guadalupe Co.   | FM 3009                   | Savana/Verde Dr.                        |                                   | 2001     | 2004        | 2.097         | 1.488         |
| Signal        | Guadalupe Co.   | SH46                      | US 90                                   |                                   | 2004     | TBDL        | 1.165         | 0.827         |
| Signal        | Guadalupe Co.   | SH46                      | US 90                                   |                                   | 2004     | TBDL        | 0.272         | 0.193         |
| Signal        | Guadalupe Co.   | FM 3009                   | IH 35E                                  | 0.21 Mi SE of IH 35               | 2004     | 2004        | 1.010         | 0.717         |
| Intersection  | TxDOT           | Hunt Lane                 | Marbach                                 | US 90                             | 2004     | 2004        | 2.790         | 1.674         |
| Intersection  | TxDOT           | Bitters                   | East of West Ave (W.of US 281)          |                                   | 2005     | 2005        | 5.529         | 3.317         |
| Intersection  | TxDOT           | Wurzbach                  | Ironsides                               | IH 10                             | 2004     | 2006        | 6.251         | 3.751         |
| Intersection  | TxDOT           | IH 10                     | Callaghan Road                          |                                   | 2004     | 2010        | 4.664         | 2.798         |
| Intersection  | TxDOT           | IH 10                     | IH 10 West at Huebner Road              |                                   | 2004     | 2006        | 4.664         | 2.798         |
| Intersection  | TxDOT           | Loop 1604                 | SH 16                                   | FM 1937                           | 2004     | TBDL        | 0.173         | 0.104         |
| Intersection  | TxDOT           | Loop 1604                 | IH 35                                   | SH 16                             | 2004     | 2006        | 3.731         | 2.239         |
| Intersection  | TxDOT           | IH 10                     | DeZavala Road                           |                                   | 2004     | 2008        | 4.961         | 2.977         |
| Intersections | COSA            | James Park Development    | Rittiman and Holbrook.                  |                                   | 2005     | 2006        | 2.292         | 1.375         |
| Intersections | COSA            | West Ave                  | Larkspur                                | Silver Sands, Rhapsody and Nakoma | 2000     | 2000        | 15.325        | 9.195         |
| Intersections | COSA            | Tezel                     | Tezel                                   | Timber Path                       | 2000     | 2000        | 3.168         | 1.901         |
| Intersections | COSA            | Broadway                  | Broadway                                | Wetmore Rd                        | 2001     | 2001        | 2.044         | 1.227         |
| Intersections | COSA            | Southwest Craft Cntr      | Navaro                                  | Augusta                           | 2004     | 2004        | 0.842         | 0.505         |
| Park & Ride   | VIA             | Crossroads                | IH-10W & Loop 410                       |                                   | 1988     | 1988        | 2.039         | 1.718         |
| Park & Ride   | VIA             | Ellis Alley               | Chestnut & Center Street                |                                   | 1998     | 1998        | 4.166         | 3.511         |
| Park & Ride   | VIA             | University                | IH 10 W & Loop 1604                     |                                   | 1993     | 1993        | 15.150        | 12.767        |
| Park & Ride   | TxDOT           | Elmendorf                 | US 181 S.& Loop 1604                    |                                   | 1981     | 1981        | 2.573         | 2.168         |
| Park & Ride   | privately owned | St. Hedwig                | FM 1346 & Pittman Rd.                   |                                   | 1988     | 1988        | 0.529         | 0.446         |
| Park & Ride   | VIA             | Randolph Blvd             | IH 35 N & Crestway                      |                                   | 1980     | 1980        | 3.038         | 2.560         |

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|--------------|--------|--------------------------|---------------------------------------|---------------------------------------|----------|-------------|---------------|---------------|
| Transit CT.  | VIA    | Ingram                   | Ingram Road & Northwestern            |                                       | 1988     | 1988        | 0.547         | 0.461         |
| Transit CT.  | VIA    | Kel-Lac                  | US 90 W. & Military Dr.               |                                       | 2004     | 2004        | 1.558         | 1.313         |
| Grade Sep    | TxDOT  | Loop 1604                | 0.52 KM N of FM 471 (Culebra Rd.)     | 0.98 KM S of FM 471 (Culebra Rd.)     | 2001     | 2003        | 17.896        | 10.738        |
| Grade Sep    | TxDOT  | IH 410                   | SH 16                                 | UPRR                                  | 2004     | 2006        | 3.722         | 2.233         |
| Grade Sep    | TxDOT  | US 281                   | Borgfeld Dr                           |                                       | 2006     | TBDL        | 17.896        | 10.738        |
| Traffic Flow | TxDOT  | Acme Road                | Old Highway 90                        |                                       | 1999     | 2001        | 0.622         | 0.207         |
| Traffic Flow | TxDOT  | Evers Rd.                | N. of Glen Ridge                      | Daughtry Dr.                          | 1999     | 2000        | 1.335         | 0.445         |
| Traffic Flow | TxDOT  | FM 2522 (Perrin Beitel)  | IH 410                                |                                       | 1999     | 2000        | 0.526         | 0.175         |
| Traffic Flow | TxDOT  | FM 78                    | Bexar Co. Ln.                         | FM 3009                               | 1999     | 2002        | 2.653         | 0.884         |
| Traffic Flow | TxDOT  | Houston (FM 1346)        | Pop Gunn                              |                                       | 1999     | 2000        | 2.002         | 0.667         |
| Traffic Flow | TxDOT  | IH 10                    | 0.2 mile South of Callaghan Road      | 0.2 mile South of N. Crossroads Blvd. | 1999     | 2005        | 27.854        | 9.285         |
| Traffic Flow | TxDOT  | IH 410                   | Interchange at US 281 Fr: US 281      | Nacogdoches                           | 1999     | TBDL        | 6.472         | 2.157         |
| Traffic Flow | TxDOT  | SH 151                   | Callaghan Rd                          |                                       | 1999     | 2004        | 0.335         | 0.112         |
| Traffic Flow | TxDOT  | Tezel                    | Timber Path                           |                                       | 1999     | 2000        | 0.609         | 0.203         |
| Traffic Flow | TxDOT  | US 281                   | 0.590 KM N of LP 1604                 | 0.746 KM N of LP 1604                 | 1999     | 2000        | 6.398         | 2.133         |
| Traffic Flow | TxDOT  | West Avenue              | FM 1535 (NW Military Hwy)             | IH 410                                | 1999     | 2002        | 2.646         | 0.882         |
| Traffic Flow | TxDOT  | Wurzbach Parkway         | Lockhill-Selma                        | FM 1535 (NW Military Hwy)             | 1999     | 2002        | 0.460         | 0.153         |
| Traffic Flow | TxDOT  | 24th                     | Commerce                              | Culebra                               | 2000     | 2001        | 2.353         | 0.784         |
| Traffic Flow | TxDOT  | Ackerman Rd.             | IH 10                                 | Dietrich                              | 2000     | 2002        | 0.190         | 0.063         |
| Traffic Flow | TxDOT  | Hildebrand               | IH-10                                 | Breeden                               | 2000     | 2003        | 2.767         | 0.922         |
| Traffic Flow | TxDOT  | Hildebrand               | Hwy. 281                              |                                       | 2000     | 2001        | 0.454         | 0.151         |
| Traffic Flow | TxDOT  | Huebner Road             | Evers Road                            | Redbird Lane (E of city limit)        | 2000     | 2001        | 1.288         | 0.429         |
| Traffic Flow | TxDOT  | Lockhill Selma           | George Road                           | Whisper Path                          | 2000     | 2003        | 0.846         | 0.282         |
| Traffic Flow | TxDOT  | O'Connor Rd              | Crosswinds                            | IH 35                                 | 2000     | 2003        | 3.418         | 1.139         |
| Traffic Flow | TxDOT  | Wetmore                  | At Broadway                           |                                       | 2000     | 2001        | 0.203         | 0.068         |
| Traffic Flow | TxDOT  | Wurzbach Rd              | 0.6 Mi East of Ingram Rd              | Leon Valley WCL                       | 2000     | 2001        | 1.945         | 0.648         |
| Traffic Flow | TxDOT  | Coliseum Rd.             | Belgium Rd.                           | IH 35                                 | 2001     | 2002        | 0.712         | 0.237         |
| Traffic Flow | TxDOT  | Culebra Rd (FM 471)      | Loop 1604                             |                                       | 2001     | TBDL        | 4.097         | 1.366         |
| Traffic Flow | TxDOT  | IH 410                   | Jackson-Keller Road                   | Honeysuckle Lane                      | 2001     | 2005        | 42.811        | 14.270        |
| Traffic Flow | TxDOT  | IH 410                   | Honeysuckle Lane                      | Blanco Rd                             | 2001     | 2005        | 25.183        | 8.394         |
| Traffic Flow | TxDOT  | Loop 1604                | 0.6 KM N of Military Dr               | US 90                                 | 2001     | TBDL        | 10.960        | 3.653         |
| Traffic Flow | TxDOT  | Loop 1604                | 1.6 KM N. of FM 471 (Culebra Rd)      | 0.6 KM N of Military Dr.              | 2001     | TBDL        | 10.818        | 3.606         |
| Traffic Flow | TxDOT  | Loop 345                 | Cinnamon Creek                        | USAA Blvd                             | 2001     | 2002        | 0.136         | 0.045         |
| Traffic Flow | TxDOT  | Wurzbach Road            | Crystall Hill                         | Crystall Hill                         | 2001     | 2003        | 1.361         | 0.454         |
| Traffic Flow | TxDOT  | IH 35                    | Coliseum & Walters                    |                                       | 2002     | 2004        | 0.053         | 0.018         |
| Traffic Flow | TxDOT  | IH 410                   | SH 151                                |                                       | 2002     | 2006        | 0.009         | 0.003         |
| Traffic Flow | TxDOT  | Pleasanton               | Southcross                            | Mayfield                              | 2002     | 2004        | 0.981         | 0.327         |
| Traffic Flow | TxDOT  | Ralph Fair Rd. (FM 3351) | Fawn Mountain, Pimlico, Dietz Elkhorn | Fair Oaks Parkway                     | 2002     | 2003        | 4.243         | 1.414         |
| Traffic Flow | TxDOT  | SH 151                   | 0.22 Mi W of Callaghan Rd.            | 0.3 Mi E of IH 410                    | 2004     | 2005        | 17.904        | 5.968         |

| Project Type | Agency        | Project Name                        | From                                  | To                                   | Let Date | Compl. Date | VOC (lbs/day) | NOx (lbs/day) |
|--------------|---------------|-------------------------------------|---------------------------------------|--------------------------------------|----------|-------------|---------------|---------------|
| Traffic Flow | TxDOT         | SH 151                              | 0.3 Mi E of IH 410                    | 1.0 Mi E of Loop 1604                | 2004     | 2004        | 19.142        | 6.381         |
| Traffic Flow | TxDOT         | Ironside                            | Wurzbach                              |                                      | 2004     | 2005        | 0.326         | 0.109         |
| Traffic Flow | Bexar Co.     | Mission Rd.                         | N. of SA River Mission Pkwy           |                                      | 2004     | TBDL        | 0.070         | 0.023         |
| Traffic Flow | TxDOT         | Thousand Oaks                       | Broken Oak, Ledge View, Turkey Point, | Pebble Forest & Oak View             | 2004     | TBDL        | 2.118         | 0.706         |
| Traffic Flow | TxDOT         | Zarzamora                           | IH 410                                | Applewhite Road                      | 2004     | 2005        | 1.999         | 0.666         |
| Traffic Flow | TxDOT         | Applewhite Road                     | Zarzamora                             | Watson Road                          | 2004     | 2005        | 1.999         | 0.666         |
| Traffic Flow | TxDOT         | Loop 1605                           | FM 1937                               | IH 37                                | 2004     | 2005        | 1.243         | 0.414         |
| Traffic Flow | TxDOT         | Military Dr., S.E. (LP 13)          | Padre                                 | Mission Rd 4C                        | 2005     | 2006        | 0.486         | 0.162         |
| Traffic Flow | Comal Co.     | LP 337                              | 0.16 KM N of BI 35-H                  | 0.48 KM N of UPRR                    | 2001     | 2002        | 3.446         | 1.378         |
| Traffic Flow | Guadalupe Co. | SH 46                               | 2.2 Mi S of FM 758 New Braunfels      | Camp Willow Rd. (0.2 Mi S of FM 758) | 2002     | 2002        | 5.878         | 2.177         |
| Traffic Flow | Guadalupe Co. | FM 78                               | Bexar Co. Ln.                         | FM 3009                              | 2002     | 2002        | 4.299         | 1.592         |
| Traffic Flow | Wilson Co.    | FM 1346                             | US 87 W of Lavernia                   | FM 775                               | 2001     | 2002        | 1.400         | 0.560         |
| Traffic Flow | Guadalupe Co. | SH 46                               | 0.2 Mi S of FM 758                    | Comal Co line                        | 2004     | 2004        | 4.219         | 1.562         |
| Traffic Flow | Guadalupe Co. | SH 123                              | Fr US 90 Kingsbury St                 | IH 10                                | 2004     | 2006        | 1.193         | 0.442         |
| Traffic Flow | COSA          | 36th ST.                            | US 90                                 | Growdon                              | 2007     | 2008        | 2.792         | 0.931         |
| Traffic Flow | COSA          | Blanco Road                         | Blanco Road - Hildebrand              | Summit Phase 1                       | 2006     | TBDL        | 3.602         | 1.201         |
| Traffic Flow | COSA          | Wurzbach Parkway Phase IV           | Military Highway                      | Blanco Road                          | 2002     | 2002        | 17.353        | 5.784         |
| Traffic Flow | COSA          | Wurzbach Rd:                        | Ingram Rd                             | Leon Valley                          | 2002     | 2002        | 4.649         | 1.550         |
| Traffic Flow | COSA          | Hamilton                            | Guadalupe                             | Laredo                               | 1999     | 1999        | 0.582         | 0.194         |
| Traffic Flow | COSA          | Wurzbach Rd @ Vance Jackson         |                                       |                                      | 1999     | 1999        | 2.227         | 0.742         |
| Traffic Flow | COSA          | Mitchell Street                     | Probandt                              | Presa                                | 1999     | 1999        | 0.336         | 0.112         |
| Traffic Flow | COSA          | Valley Hi Drive                     | IH 410                                | Ray Ellison                          | 1999     | 1999        | 0.412         | 0.137         |
| Traffic Flow | COSA          | Chipinque Drainage                  | General McMullen                      | Escuela                              | 1999     | 1999        | 1.297         | 0.432         |
| Traffic Flow | COSA          | Zarzamora                           | Culebra                               | Commerce                             | 1999     | 1999        | 2.705         | 0.902         |
| Traffic Flow | COSA          | Calaveras                           | Saunders                              | Guadalupe                            | 1999     | 1999        | 0.568         | 0.189         |
| Traffic Flow | COSA          | Courtland Street                    | Mccullough                            | St. Mary's                           | 1999     | 1999        | 0.424         | 0.141         |
| Traffic Flow | COSA          | Guadalupe Gardens Phase II          |                                       |                                      | 1999     | 1999        | 1.241         | 0.414         |
| Traffic Flow | COSA          | Chico/Knox/Margil                   |                                       |                                      | 1999     | 1999        | 0.024         | 0.008         |
| Traffic Flow | COSA          | Folyn/Jersey/Custer/O range         |                                       |                                      | 1999     | 1999        | 0.280         | 0.093         |
| Traffic Flow | COSA          | Travis                              | Zarzamora                             | Hamilton                             | 1999     | 1999        | 0.566         | 0.189         |
| Traffic Flow | COSA          | Villa Coronado Streets, Phase III A |                                       |                                      | 1999     | 1999        | 0.097         | 0.032         |
| Traffic Flow | COSA          | Mayfield                            | Somerset                              | Laredo Hwy                           | 1999     | 1999        | 0.122         | 0.041         |
| Traffic Flow | COSA          | Hazel Drainage                      | Zarzamora                             | Brazos                               | 1999     | 1999        | 0.751         | 0.250         |
| Traffic Flow | COSA          | Lillita                             | Gen. McMullen                         | Las Palmas                           | 1999     | 1999        | 0.108         | 0.036         |
| Traffic Flow | COSA          | Advance & Brice                     |                                       |                                      | 1999     | 1999        | 0.045         | 0.015         |
| Traffic Flow | COSA          | calle morelia drainage              |                                       |                                      | 1999     | 1999        | 0.095         | 0.032         |
| Traffic Flow | COSA          | Emory / Kentucky                    |                                       |                                      | 1999     | 1999        | 0.120         | 0.040         |
| Traffic Flow | COSA          | 26th Street                         | Travis                                | Culebra                              | 1999     | 1999        | 0.147         | 0.049         |
| Traffic Flow | COSA          | Wurzbach Parkway Phase II           |                                       |                                      | 1999     | 1999        | 11.623        | 3.874         |
| Traffic Flow | COSA          | Keitha Area Streets Phase II        |                                       |                                      | 1999     | 1999        | 0.645         | 0.215         |

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|--------------|--------|---|----------------------|-------------------|----------|-------------|---------------|---------------|
| Traffic Flow | COSA   | Muskogee  | Acme                 | 40th              | 1999     | 1999        | 0.080         | 0.027         |
| Traffic Flow | COSA   | Boehmer   | Burbank Loop         | S. Flores         | 1999     | 1999        | 0.014         | 0.005         |
| Traffic Flow | COSA   | Dewitt  | IH 10                | Fairmont          | 1999     | 1999        | 0.028         | 0.009         |
| Traffic Flow | COSA   | Claremont/Eleanor/Natalen, Ph I & Mahncke Ph IV |                      |                   | 1999     | 1999        | 0.234         | 0.078         |
| Traffic Flow | COSA   | Lake Blvd/Woodlawn/Streets                      | Around Woodlawn Lake |                   | 1999     | 1999        | 2.077         | 0.692         |
| Traffic Flow | COSA   | S. Flores Dm #70-70a, Ph. II--Part 2            |                      |                   | 2000     | 2000        | 0.000         | 0.000         |
| Traffic Flow | COSA   | 34th Street                                     | Hwy 90               | Castroville       | 2000     | 2000        | 0.064         | 0.021         |
| Traffic Flow | COSA   | 27th  | Culebra              | Rivas             | 2000     | 2000        | 0.052         | 0.017         |
| Traffic Flow | COSA   | 21st Street                                     | Salinas              | Poplar            | 2000     | 2000        | 0.268         | 0.089         |
| Traffic Flow | COSA   | Eastlawn Neighborhood Streets Phase II          |                      |                   | 2000     | 2000        | 0.435         | 0.145         |
| Traffic Flow | COSA   | Southlawn                                       | Merida               | Castroville       | 2000     | 2000        | 0.089         | 0.030         |
| Traffic Flow | COSA   | Madrid  | Merida               | Castroville Rd    | 2000     | 2000        | 0.025         | 0.008         |
| Traffic Flow | COSA   | Grandview Neighborhood Streets Ph. IIIA         |                      | (K Street)        | 2000     | 2000        | 0.047         | 0.016         |
| Traffic Flow | COSA   | Wurzbach Parkway Phase III                      |                      |                   | 2000     | 2000        | 0.391         | 0.130         |
| Traffic Flow | COSA   | Glenmore  |                      | Kentucky          | 2000     | 2000        | 0.047         | 0.016         |
| Traffic Flow | COSA   | Villa Coronado Streets Phase IIIB               |                      |                   | 2000     | 2000        | 0.043         | 0.014         |
| Traffic Flow | COSA   | Arbor   | Trinity              | San Marcos        | 2000     | 2000        | 0.083         | 0.028         |
| Traffic Flow | COSA   | Fairdale  | Rittiman             | Bloomdale         | 2000     | 2000        | 0.323         | 0.108         |
| Traffic Flow | COSA   | Stahl Rd. #1038 Phase I                         | Fairway Oaks         | Bulverde          | 2000     | 2000        | 0.273         | 0.091         |
| Traffic Flow | COSA   | Babcock & Hillcrest Intersection                |                      |                   | 2000     | 2000        | 1.364         | 0.455         |
| Traffic Flow | COSA   | Apple Valley                                    | Haven Valley         | Ray Ellison       | 2000     | 2000        | 0.141         | 0.047         |
| Traffic Flow | COSA   | Las Palmas                                      | Charben              | 26th              | 2000     | 2000        | 0.129         | 0.043         |
| Traffic Flow | COSA   | Contour Dr / El Monte St                        |                      |                   | 2000     | 2000        | 1.697         | 0.566         |
| Traffic Flow | COSA   | Evers Rd  | Glenridge            | Daughtry          | 2000     | 2000        | 1.424         | 0.475         |
| Traffic Flow | COSA   | Baylor St                                       | San Pedro Ck.        | Flores St.        | 2000     | 2000        | 0.010         | 0.003         |
| Traffic Flow | COSA   | Culebra Area Streets Phase II                   |                      |                   | 2000     | 2000        | 0.901         | 0.300         |
| Traffic Flow | COSA   | Hildebrand @ 281                                |                      |                   | 2000     | 2000        | 1.040         | 0.347         |
| Traffic Flow | COSA   | Lone Oak/Latimer:                               | F St                 | Brice             | 2001     | 2001        | 0.020         | 0.007         |
| Traffic Flow | COSA   | Rip Rap 69-Phiic Part 3                         |                      |                   | 2001     | 2001        | 0.105         | 0.035         |
| Traffic Flow | COSA   | Ackerman  | IH 10                | Dietrich          | 2001     | 2001        | 0.216         | 0.072         |
| Traffic Flow | COSA   | Carson Street                                   | Walters              | Frank             | 2001     | 2001        | 0.077         | 0.026         |
| Traffic Flow | COSA   | Starcrest                                       | Stuntman             | Jones Maltsberger | 2001     | 2001        | 0.081         | 0.027         |
| Traffic Flow | COSA   | Bobolink 96A                                    | Storeywood           | Deneice           | 2001     | 2001        | 1.828         | 0.609         |
| Traffic Flow | COSA   | Mahncke Area Streets, Phase II                  |                      |                   | 2001     | 2001        | 0.752         | 0.251         |
| Traffic Flow | COSA   | Creswell  | Houston              | Deadend           | 2001     | 2001        | 0.024         | 0.008         |
| Traffic Flow | COSA   | Thorain   | Buckeye              | S.P. Railroad     | 2001     | 2001        | 0.039         | 0.013         |
| Traffic Flow | COSA   | Fred. Rd  | Sandoval             | Woodlawn          | 2001     | 2001        | 1.472         | 0.491         |
| Traffic Flow | COSA   | Hobart Street                                   | Acme Rd              | 40th St           | 2001     | 2001        | 0.023         | 0.008         |

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| Traffic Flow | COSA   | Lawton / Sw 41st Street               |                  |                            | 2001     | 2001        | 0.019         | 0.006         |
| Traffic Flow | COSA   | Orr                                   | Suzette          | Winkle                     | 2001     | 2001        | 0.019         | 0.006         |
| Traffic Flow | COSA   | Fleming                               | Mayfield         | Peabody                    | 2001     | 2001        | 0.016         | 0.005         |
| Traffic Flow | COSA   | Evers Rd @ Wurzbach Rd Intersection   |                  |                            | 2001     | 2001        | 0.102         | 0.034         |
| Traffic Flow | COSA   | Capitol                               | Basse            | San Angelo                 | 2001     | 2001        | 0.010         | 0.003         |
| Traffic Flow | COSA   | Grandview Neighborhood Sts Ph IIIB    | Pecan Valley     | Amanda                     | 2001     | 2001        | 0.020         | 0.007         |
| Traffic Flow | COSA   | Pace                                  | Elmendorf        | Brazos                     | 2001     | 2001        | 0.139         | 0.046         |
| Traffic Flow | COSA   | Texas / Waverly Streets               |                  |                            | 2001     | 2001        | 0.527         | 0.176         |
| Traffic Flow | COSA   | Basse Road & San Pedro Intersection   |                  |                            | 2001     | 2001        | 1.625         | 0.542         |
| Traffic Flow | COSA   | Monterrey                             | 36th             | San Joaquin                | 2001     | 2001        | 0.467         | 0.156         |
| Traffic Flow | COSA   | Blueridge                             | Gen McMullen     | 27th                       | 2001     | 2001        | 0.143         | 0.048         |
| Traffic Flow | COSA   | Rip Rap 69 - Ph IIC Part 3A           |                  |                            | 2001     | 2001        | 0.166         | 0.055         |
| Traffic Flow | COSA   | Callaghan:                            | Old Hwy 90       | Commerce                   | 2001     | 2001        | 1.021         | 0.340         |
| Traffic Flow | COSA   | Duval/Seguin:                         | Pierce           | Walters                    | 2001     | 2001        | 0.223         | 0.074         |
| Traffic Flow | COSA   | 24th St:                              | Commerce         | Culebra                    | 2001     | 2001        | 0.236         | 0.079         |
| Traffic Flow | COSA   | Claremont/Eleanor/Natalen, Ph II      |                  |                            | 2001     | 2001        | 0.175         | 0.058         |
| Traffic Flow | COSA   | Strech                                | Chavaneaux       | Malley Blvd                | 2001     | 2001        | 0.128         | 0.043         |
| Traffic Flow | COSA   | Indianola                             | Garfield         | Camargo                    | 2001     | 2001        | 0.008         | 0.003         |
| Traffic Flow | COSA   | Elsmere                               | Michigan         | Capitol                    | 2002     | 2002        | 0.021         | 0.007         |
| Traffic Flow | COSA   | Arbor                                 | Trinity          | San Marcos Ph II           | 2002     | 2002        | 0.029         | 0.010         |
| Traffic Flow | COSA   | Escalon St. #1008                     |                  |                            | 2002     | 2002        | 0.051         | 0.017         |
| Traffic Flow | COSA   | S. Flores Drn #70-70A, Ph. II--Part 3 |                  |                            | 2002     | 2002        | 11.316        | 3.772         |
| Traffic Flow | COSA   | Octavia #63 Phase 1                   |                  |                            | 2002     | 2002        | 0.678         | 0.226         |
| Traffic Flow | COSA   | Leonhardt Road @ Low Water Crossing   |                  |                            | 2002     | 2002        | 0.299         | 0.100         |
| Traffic Flow | COSA   | St. Marys Street -                    | Pereida          | Roosevelt                  | 2002     | 2002        | 0.841         | 0.280         |
| Traffic Flow | COSA   | Lockhill-Selma:                       | George           | Whisper Path               | 2003     | 2003        | 0.731         | 0.244         |
| Traffic Flow | COSA   | 39th Street #58m, Phase II A          |                  |                            | 2003     | 2003        | 0.871         | 0.290         |
| Traffic Flow | COSA   | Quintana Road Drainage #64 Extension  |                  |                            | 2003     | 2003        | 0.648         | 0.216         |
| Traffic Flow | COSA   | S. Flores:                            | Durango          | Franciscan                 | 2003     | 2003        | 1.269         | 0.423         |
| Traffic Flow | COSA   | Monticello:                           | S. Gevers        | Hillje                     | 2003     | 2003        | 0.095         | 0.032         |
| Traffic Flow | COSA   | Higgins Road:                         | Nacogdoches      | Stahl                      | 2003     | 2003        | 1.551         | 0.517         |
| Traffic Flow | COSA   | Hi Lions 80 Mod PIII & V              |                  |                            | 2004     | 2004        | 11.176        | 3.725         |
| Traffic Flow | COSA   | Bee Street:                           | Walters          | Frank                      | 2004     | 2004        | 0.030         | 0.010         |
| Traffic Flow | COSA   | Aransas:                              | Meerscheidt      | Walters                    | 2004     | 2004        | 0.077         | 0.026         |
| Traffic Flow | COSA   | Flores/Breeden/Beacon, Phase II       |                  |                            | 2004     | 2004        | 0.417         | 0.139         |
| Traffic Flow | COSA   | Mockert Street Area                   | Mockert, Forest, | ( W. Lambert, Kline, Cass) | 2004     | 2004        | 0.435         | 0.145         |
| Traffic Flow | COSA   | Pleasanton Road                       | Gillette         | Loop 410                   | 2004     | 2005        | 0.000         | 0.000         |
| Traffic Flow | COSA   | Northington                           | S.W. 36th        | S.W. 35th                  | 2004     | 2004        | 0.075         | 0.025         |



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| Traffic Flow | COSA      | Fay Street / St Joseph:          | Creighton                          | New Laredo Hwy, Part 1                  | 2005     | 2005        | 0.264         | 0.088         |
| Traffic Flow | COSA      | Fay Street / St. Joseph:         | Creighton                          | New Laredo Hwy, Part 2                  | 2005     | 2005        | 0.000         | 0.000         |
| Traffic Flow | COSA      | Belgium:                         | Picarde                            | Sbc Parkway                             | 2005     | 2005        | 0.137         | 0.046         |
| Traffic Flow | COSA      | El Monte                         | Blanco                             | San Pedro, Phase II                     | 2005     | 2005        | 0.045         | 0.015         |
| Traffic Flow | COSA      | Lanark Drainage #92A, Phase 1    |                                    |   | 2005     | 2006        | 0.383         | 0.128         |
| Traffic Flow | COSA      | Larkspur                         | West Ave                           | Baltic                                  | 2005     | 2006        | 0.260         | 0.087         |
| Traffic Flow | COSA      | Sunset Ph I                      | Jones Maltsberger                  | Teak                                    | 2005     | 2006        | 1.014         | 0.338         |
| Traffic Flow | COSA      | Alamo                            | Durango                            | Cedar                                   | 2005     | 2006        | 0.328         | 0.109         |
| Traffic Flow | COSA      | Wurzbach Rd @ IH 10 Intersection |                                    |   | 2005     | 2006        | 2.128         | 0.709         |
| Traffic Flow | COSA      | St. Marys Street                 | Alamo                              | Pereida                                 | 2005     | 2006        | 0.202         | 0.067         |
| Traffic Flow | COSA      | Ansley Blvd Drainage #1091       |                                    |   | 2006     | TBDL        | 0.139         | 0.046         |
| Traffic Flow | COSA      | Duke Area Streets, Phase I       |                                    |   | 2006     | 2006        | 0.275         | 0.092         |
| Traffic Flow | COSA      | Culebra Area Streets Phase IV    |                                    |   | 2006     | 2006        | 0.288         | 0.096         |
| Traffic Flow | COSA      | Howard Drainage                  | Wildwood                           | El Monte                                | 2006     | 2006        | 0.018         | 0.006         |
| Traffic Flow | COSA      | Ave Maria Drainage               |                                    |   | 2006     | TBDL        | 0.056         | 0.019         |
| Traffic Flow | COSA      | Goliad Rd                        | Pecan Valley                       | Military Drive                          | 2006     | TBDL        | 0.329         | 0.110         |
| Traffic Flow | COSA      | W. Craig                         | Elmendorf                          | Josephine Tobin                         | 2006     | TBDL        | 0.027         | 0.009         |
| Traffic Flow | COSA      | Woodlawn Ave:                    | San Antonio                        | Lake                                    | 2006     | TBDL        | 0.199         | 0.066         |
| Traffic Flow | COSA      | Ozark                            | Erskine                            | Williamsburg                            | 2006     | 2006        | 0.064         | 0.021         |
| Traffic Flow | COSA      | Florida                          | IH 37                              | St Marys                                | 2006     | TBDL        | 0.380         | 0.127         |
| Traffic Flow | COSA      | Sunset Ph II                     | Teak                               | Broadway                                | 2006     | TBDL        | 0.538         | 0.179         |
| Traffic Flow | COSA      | Woodlawn                         | Bandera                            | Maiden                                  | 2006     | 2008        | 0.114         | 0.038         |
| Traffic Flow | COSA      | Semlinger Road                   | Lord                               | Rigsby                                  | 2006     | 2005        | 0.434         | 0.145         |
| Traffic Flow | COSA      | Stahl Road                       | O'connor                           | Judson                                  | 2007     | 2008        | 1.147         | 0.382         |
| Traffic Flow | COSA      | Marbach Phase I                  | Military                           | Pinn                                    | 2007     | TBDL        | 0.654         | 0.218         |
| Traffic Flow | COSA      | Redland Road Improvements        | Redland Woods                      | Jones Maltsberger                       | 2007     | 2006        | 2.516         | 0.839         |
| Traffic Flow | Bexar Co. | Shaenfield Road                  | Loop 1604                          | FM 1560                                 | 2006     | 2008        | 0.180         | 0.060         |
| Traffic Flow | Bexar Co. | Braun Road                       | Loop 1604                          | FM 1560                                 | 2004     | 2007        | 1.600         | 0.530         |
| Traffic Flow | Bexar Co. | Borgfeld Road                    | Hwy 281                            | Timberline                              | 2004     | 2007        | 2.750         | 0.920         |
| Traffic Flow | Bexar Co. | Bulverde Road                    | Smithson Valley                    | Hwy 281                                 | 2006     | 2008        | 0.300         | 0.100         |
| Traffic Flow | Bexar Co. | Foster Road                      | I-10                               | Binz-Engleman                           | 2004     | 2007        | 2.160         | 0.720         |
| Traffic Flow | Bexar Co. | Kriewald Road                    | Hwy 90                             | Pue Road                                | 2006     | 2007        | 0.140         | 0.050         |
| Traffic Flow | Bexar Co. | Lakeview Drive                   | Woodlake Parkway                   | Foster Road                             | 2006     | 2005        | 0.460         | 0.150         |
| Traffic Flow | Bexar Co. | Pue Road                         | Kriewald Road                      | Sunset Place                            | 2006     | 2007        | 0.660         | 0.220         |
| Traffic Flow | Bexar Co. | Smith Road                       | Hwy 16                             |   | 2006     | 2007        | 0.900         | 0.300         |
| Traffic Flow | Bexar Co. | Wiseman Road                     | Loop 1604 west                     | Talley Road.                            | 2004     | 2006        | 5.350         | 1.780         |
| Traffic Flow | Bexar Co. | Woodlake Parkway                 | Binz-Engleman                      | FM 78                                   | 2006     | 2007        | 1.580         | 0.530         |
| Traffic Flow | Bexar Co. | Applewhite Road                  | Watson Road                        | Loop 1604.                              | 2004     | 2005        | 9.473         | 3.158         |
| TMS          | TxDOT     | IH 35                            | FM 1976 (Walzem Road)              | New Braunfels Ave.                      | 1999     | 1999        | 151.37        | 50.46         |
| TMS          | TxDOT     | US 90                            | 0.8 Mi W. of IH 410                | Loop 353 Nogalitos                      | 1999     | 1999        | 89.898        | 29.966        |
| TMS          | TxDOT     | IH 35                            | Guadalupe County Line NE           | 1.77 KM N of FM 1976 (Frat Interchange) | 2000     | 2000        | 41.339        | 13.780        |
| TMS          | TxDOT     | IH 36                            | 1.77 KM N. of FM 1976 (Fratt int.) | FM 1976 (Walzem)                        | 2000     | 2000        | 30.396        | 10.132        |



| Project Type | Agency | Project Name                | From                                 | To                    | Let Date | Compl. Date | VOC (lbs/day) | NOx (lbs/day) |
|--------------|--------|-----------------------------|--------------------------------------|-----------------------|----------|-------------|---------------|---------------|
| TMS          | TxDOT  | IH 37                       | Loop 13                              | 1.3 Mi S of US 181    | 2000     | 2000        | 9.089         | 3.030         |
| TMS          | TxDOT  | IH 410                      | Callaghan Road                       | Fredericksburg Road   | 2000     | 2000        | 37.141        | 12.380        |
| TMS          | TxDOT  | Loop 1604                   | 0.8 KM W of Babcock Road             | SH 16(N)              | 2000     | 2000        | 14.741        | 4.914         |
| ITS          | TxDOT  | Loop 1604                   | On N and S frontage roads FM 1535, E | Bitters Rd            | 2001     | 2001        | 6.079         | 2.026         |
| ITS          | TxDOT  | Loop 1604                   | 3.21 KM E. of US 281 N.              | 1.61 KMN of FM 2252   | 1999     | 1999        | 52.434        | 17.478        |
| ITS          | TxDOT  | US 281                      | 0.6 Mi N of Loop 1604                | 2.5 Mi N of Loop 1604 | 2004     | TBDL        | 26.445        | 8.815         |
| TMS          | TxDOT  | 410 Upgrade to 10 lanes     | Ingram Road                          | Callaghan Road        | 2006     | TBDL        | 103.350       | 34.449        |
| ITS          | COSA   | Houston - Walters To Onslow | Onslow                               | New Braunfels         | 2003     | 2003        | 2.085         | 0.695         |

TBDL: To Be Determine Later

**Major Permits which could impact San Antonio attainment status**

| Principal Name (Plant)                                | Location  | County    | Permit Number                          | Type of Facility                                       | Mailed Date   | Status        | Operation Start Date | Net Capacity                 | Air Contaminants    | NOx Emission Rate |
|---|---|-----------|--|--|---------------|---------------|----------------------|------------------------------|---------------------|-------------------|
| CPS (Spruce2)   | 9599 Gardner Road, San Antonio, Texas                             | Bexar     | 70492, 103042                          | Powder River Basin (PRB) Coal Power Plant              | 11/24/2003    | ISSUED        | 2009                 | 750 MW                       | VOC, NOx, CO and PM | 0.05              |
| Chemical Line   | 3550 APG Lane, New Braunfels, Texas, 78132                        | Comal     | not submitted                          | Portland Cement Manufacturing Facility                 | not submitted | not submitted | ?                    | ?                            | VOC, NOx, CO and PM |                   |
| TXI OPERATIONS LP                                     | Hunter Cement Plant located at 7781 FM 1102, New Braunfels, Texas | Comal     | 5933, 5933A, 5933D, CS0018B, PSDTX63M3 | Dry-Process Preheater/Precalciner Kiln and Finish Mill | 2/9/2006      | PENDING       | 2009                 | 1.25 million tons of clinker | VOC, NOx, CO and PM |                   |
| CEMEX CEMENT OF TEXAS LP                              | 2580 Wald Road, New Braunfels, Texas 78132-4983                   | Comal     | 6048                                   | Portland Cement Manufacturing Facility                 | 6/9/2005      | COMPLETED     | 2008 or later        | 1.25 million tons of clinker | VOC, NOx, CO and PM |                   |
| The Calhoun County Navigation District (E S Joslin 2) | 135 County Road 319, Point Comfort, Texas                         | Calhoun   | 45586, PSDTX1055                       | Coal Power Plant                                       | 2/28/2006     | PENDING       | 2009                 | 300 MW                       | VOC, NOx, CO and PM | 0.07              |
| Formosa Plastics Corp., TX                            | P. O. Box 700, Point Comfort, Texas 77978                         | Calhoun   | 76305, PSDTX1058                       | Specialty PVC (polyvinyl chloride) Plant               | 5/31/2005     | PENDING       | 2009                 | 300 MW                       | VOC, NOx, and CO    | 0.07              |
| Sandow 5 (replaces ALCOA units)                       | Rockdale  | Milan     | 48437                                  | Coal Power Plant                                       | 11/1/2002     | ISSUED        | 2007                 | 434 MW                       | VOC, NOx, CO and PM |                   |
| Oak Grove Mgmt. Co. LP (TXU)                          | 12 miles north of Franklin, Texas, off of FM 979, Franklin        | Robertson | 76474, P1056                           | Lignite Coal Power Plant                               | 7/27/2005     | PENDING       | 2009                 | 1,600 MW                     | VOC, NOx, CO and PM | 0.07              |
| Sandy Creek En. Assocs., LP                           | Rattlesnake Road, Riesel  | McLennan  | 70861, P1039                           | PRB Coal Power Plant                                   | 7/13/2005     | PENDING       | 2008                 | 600 MW                       | VOC, NOx, CO and PM | 0.05              |
| Twin Oaks Power III, LP (Semptra)                     | eight miles north of Calvert on Highway 6 in Calvert              | Robertson | 76381, P1054                           | Lignite Coal Power Plant                               | 5/6/2005      | PENDING       | 2010                 | 600 MW                       | VOC, NOx, CO and PM | 0.08              |
| Safeguard Security Services, Ltd.                     | 5926 Corridor Parkway, Schertz                                    | Guadalupe | 74195                                  | Fiberglass   | 3/6/2006      | PENDING       | 2007 ?               |                              | VOC and PM          |                   |
| City of Victoria (assumed at Joslin 2 emissions)      |   | Victoria  | No permit yet                          | Powder River Basin (PRB) Coal Power Plant              | not submitted | Unlikely      | Already Constructed  | ?                            | VOC, NOx, CO and PM |                   |

In the 4 county EAC RegionCombined Impact

| Principal Name (Plant)                                | Modeled in 2007 or 2012 Base Case | VOC Emissions (tons/day)  | NOx Emissions (tons/day) | Maximum 8-hour Ozone Impact | Impact near Monitors (C23) | Impact near Monitors (C58) | Maximum 8-hour Ozone Impact | Impact near Monitors (C23) | Impact near Monitors (C58) | Maximum 8-hour Ozone Impact | Impact near Monitors (C23) | Impact near Monitors (C58) |  |  |  |
|---|-----------------------------------|---------------------------|--------------------------|-----------------------------|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|--|--|--|
| CPS (Spruce2)   | YES                               | 0.07                      | 5.93                     | ?                           | 0.200                      | 0.168                      |                             |                            |                            |                             |                            |                            |  |  |  |
| Chemical Line   | NO                                | ?                         | ?                        | ?                           | ?                          | ?                          |                             |                            |                            |                             |                            |                            |  |  |  |
| TXI OPERATIONS LP                                     | NO                                | 0.17                      | 4.20                     | 2.683                       | 0.009                      | 0.042                      |                             |                            |                            | 2.702                       | 0.039                      | 0.074                      |  |  |  |
| CEMEX CEMENT OF TEXAS LP                              | NO                                | Emissions are offset      | Emissions are offset     | 0.000                       | 0.000                      | 0.000                      |                             |                            |                            |                             |                            |                            |  |  |  |
| The Calhoun County Navigation District (E S Joslin 2) | NO                                | 0.18                      | 2.23                     |                             |                            |                            | 0.553                       | 0.030                      | 0.031                      |                             |                            |                            |  |  |  |
| Formosa Plastics Corp., TX                            | NO                                | 0.36                      | 4.03                     |                             |                            |                            |                             |                            |                            |                             |                            |                            |  |  |  |
| Sadow 5 (replaces ALCOA units)                        | NO                                | 0.36                      | 7.10                     |                             |                            |                            |                             |                            |                            |                             |                            |                            |  |  |  |
| Oak Grove Mgmt. Co. LP (TXU)                          | NO                                | 1.13                      | 20.64                    | 0.117                       | 0.008                      | 0.009                      |                             |                            |                            |                             |                            |                            |  |  |  |
| Sandy Creek En. Assocs., LP                           | NO                                | 0.35                      | 6.88                     |                             |                            |                            |                             |                            |                            |                             |                            |                            |  |  |  |
| Twin Oaks Power III, LP (Semptra)                     | NO                                | 0.36                      | 8.16                     |                             |                            |                            |                             |                            |                            |                             |                            |                            |  |  |  |
| Safeguard Security Services, Ltd.                     | NO                                | not a significant source? | 0.00                     |                             |                            |                            |                             |                            |                            |                             |                            |                            |  |  |  |
| City of Victoria (assumed at Joslin 2 emissions)      | NO                                | 0.18                      | 2.23                     | ?                           | ?                          | ?                          |                             |                            |                            |                             |                            |                            |  |  |  |

## Appendix C: Major New Permits

| Principal Name (Plant) | Location       | County    | Permit Number | Type of Facility                          | Mailed Date   | Status        | Date of construction | Net Capacity | Air Contaminants    |  |
|------------------------|----------------|-----------|---------------|---|---------------|---------------|----------------------|--------------|---------------------|--|
| Coleta Creek           | Fannin         | Goliad    | No permit yet | PRB Coal Power Plant                      | not submitted | not submitted | After 2007           | ?            | VOC, NOx, CO and PM |  |
| Big Brown 3            | Fairfield      | Freestone | 78759         | Powder River Basin (PRB) Coal Power Plant | 4/20/2006     | PENDING       | 2009                 | 800 MW       | VOC, NOx, CO and PM |  |
| Lake Creek 3           | Riesel         | McLennan  | 78751         | Powder River Basin (PRB) Coal Power Plant | 4/20/2006     | PENDING       | 2009                 | 800 MW       | VOC, NOx, CO and PM |  |
| Martin Lake 4          | Tatum          | Rusk      | 78750         | Powder River Basin (PRB) Coal Power Plant | 4/20/2006     | PENDING       | 2009                 | 800 MW       | VOC, NOx, CO and PM |  |
| Monticello 4           | Mount Pleasant | Titus     | 78744         | Powder River Basin (PRB) Coal Power Plant | 4/20/2006     | PENDING       | 2009                 | 800 MW       | VOC, NOx, CO and PM |  |
| Morgan Creek 7         | Colorado City  | Mitchell  | 78761         | Powder River Basin (PRB) Coal Power Plant | 4/20/2006     | PENDING       | 2009                 | 800 MW       | VOC, NOx, CO and PM |  |
| Tradinghouse 3         | Waco           | McLennan  | 78762         | Powder River Basin (PRB) Coal Power Plant | 4/20/2006     | PENDING       | 2009                 | 800 MW       | VOC, NOx, CO and PM |  |
| Tradinghouse 4         | Waco           | McLennan  | 78762         | Powder River Basin (PRB) Coal Power Plant | 4/20/2006     | PENDING       | 2009                 | 800 MW       | VOC, NOx, CO and PM |  |
| Valley 4               | Savoy          | Fannin    | 78763         | Powder River Basin (PRB) Coal Power Plant | 4/20/2006     | PENDING       | 2009                 | 800 MW       | VOC, NOx, CO and PM |  |

## Appendix C: Major New Permits

| Principal Name (Plant) | Modeled in 2007 or 2012 Base Case | VOC Emissions (tons/day) | NOx Emissions (tons/day) | Maximum 8-hour Ozone Impact | Impact near Monitors (C23) | Impact near Monitors (C58) | Maximum 8-hour Ozone Impact | Impact near Monitors (C23) | Impact near Monitors (C58) | Maximum 8-hour Ozone Impact | Impact near Monitors (C23) | Impact near Monitors (C58) |
|------------------------|-----------------------------------|--------------------------|--------------------------|-----------------------------|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|
| Coleta Creek           | NO                                | 0.21                     | 12.76                    | 0.877                       | 0.010                      | 0.011                      |                             |                            |                            |                             |                            |                            |
| Big Brown 3            | NO                                | 0.46?                    | 6.41?                    |                             |                            |                            |                             |                            |                            |                             |                            |                            |
| Lake Creek 3           | NO                                | 0.46?                    | 6.41?                    |                             |                            |                            |                             |                            |                            |                             |                            |                            |
| Martin Lake 4          | NO                                | 0.46?                    | 6.41?                    |                             |                            |                            |                             |                            |                            |                             |                            |                            |
| Monticello 4           | NO                                | 0.46?                    | 6.41?                    |                             |                            |                            |                             |                            |                            |                             |                            |                            |
| Morgan Creek 7         | NO                                | 0.46?                    | 6.41?                    |                             |                            |                            |                             |                            |                            |                             |                            |                            |
| Tradinghouse 3         | NO                                | 0.46?                    | 6.41?                    |                             |                            |                            |                             |                            |                            |                             |                            |                            |
| Tradinghouse 4         | NO                                | 0.46?                    | 6.41?                    |                             |                            |                            |                             |                            |                            |                             |                            |                            |
| Valley 4               | NO                                | 0.46?                    | 6.41?                    |                             |                            |                            |                             |                            |                            |                             |                            |                            |

| For sources that are not modeled (i.e. not including CPS) | VOC Emissions (tons/day) | NOx Emissions (tons/day) | Maximum 8-hour Ozone Impact | Impact near Monitors (C23) | Impact near Monitors (C58) |
|---|--------------------------|--------------------------|-----------------------------|----------------------------|----------------------------|
| All New Sources (besides TXI)                             | 6.81                     | 115.31                   | 6.925                       | 0.040                      | 0.042                      |
| All New Sources   | 6.98                     | 119.51                   | 6.935                       | 0.050                      | 0.085                      |

| A.<br>Control Measure   | B.<br>Summary Description of Measure   | C.<br>Program/Measure Status   | D.<br>Specific Implementation Date                       | E.<br>VOC Reduction                               | F.<br>NOx Reduction                             | G.<br>Resources (FTE's, \$\$)  | H.<br>Additional Information  |
|---|--|--|--|---|---|--|---|
| <b>30 San Antonio, TX (Effective date of nonattainment designation deferred)</b>  |  |  |  |   |   |  |   |
| Degreasing controls   | Degreasing equipment controls outline methods for reduction of emissions from solvent evaporation; reductions achieved through use of efficient equipment, including: batch-loaded cold cleaners, open-top vapor degreasers, conveyORIZED (in-line) degreasers, air-tight, and airless cleaning systems.   | Measures are currently in effect. State rule effecting implementation: TCEQ has revised Chapter 115, Subchapter E, Solvent-Using Processes, Division 1, Degreasing Processes, to extend the control requirements to the four counties in the EAC region.<br><b>SIP docket ID: R06-OAR-2005-TX-0010-0005 (pg 5.5)</b> | by Dec. 2005   | 85 %  |   |  | <a href="http://info.sos.state.tx.us/pls/pub/readtac\$ext.ViewTAC?tac_view=5&amp;ti=30&amp;pt=1&amp;ch=115&amp;sch=E&amp;div=1&amp;rl=Y">http://info.sos.state.tx.us/pls/pub/readtac\$ext.ViewTAC?tac_view=5&amp;ti=30&amp;pt=1&amp;ch=115&amp;sch=E&amp;div=1&amp;rl=Y</a>   |
| Stage I Vapor Recovery (At the request of local governments, TCEQ lowered the exemption level for facilities subject to Stage I vapor recovery controls from 125,000 gal/mo to 25,000 gal/mo) | Equipment captures stored tank vapors by a vapor return hose and are returns it to the refueling truck. This measure is defined in the TCEQ revised Chapter 115, subchapter C, Volatile Organic Compound Transfer Operations, Division 2, Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities.<br><b>SIP docket ID: R06-OAR-2005-TX-0010-0005 (pg 5.7)</b>                      | Measure is currently in effect.  | by Dec. 2005   | 5.81 TPD  | 0 TPD   |  | <a href="http://info.sos.state.tx.us/pls/pub/readtac\$ext.TacPage?sl=R&amp;app=9&amp;p_dir=&amp;p_rloc=&amp;p_tloc=&amp;p_ploc=&amp;pg=1&amp;p_tac=&amp;ti=30&amp;pt=1&amp;ch=115&amp;rl=229">http://info.sos.state.tx.us/pls/pub/readtac\$ext.TacPage?sl=R&amp;app=9&amp;p_dir=&amp;p_rloc=&amp;p_tloc=&amp;p_ploc=&amp;pg=1&amp;p_tac=&amp;ti=30&amp;pt=1&amp;ch=115&amp;rl=229</a>   |
| Energy efficiency / Renewable energy projects --TCEQ  | Projects that incorporate renewable sources of energy or increase energy efficiency by equipment retrofits, etc.   | Projects used for SIP credit have been completed and the estimated reduction were approved by the EPA.   | by Dec. 2005 for the measures that were given SIP credit | 0 TPD   | 0.06 TPD  |  | <a href="https://txspace.tamu.edu/bitstream/1969.1/2055/1/ESL-TR-04-05-01.pdf">https://txspace.tamu.edu/bitstream/1969.1/2055/1/ESL-TR-04-05-01.pdf</a>   |
| Transportation emission reduction measures (TERMs) (traffic signalization & intelligent transportation systems)   | Modeled emission reductions. TERM projects include signalization, ITS, public transit, bike/pedestrian travel, traffic flow improvements, & ITS.   | Final Rule was published on August 19, 2005. Projects are scheduled for completion between 1999 and 2007.  | by Dec.-2005 <b>2007</b>                                 | 0.92 TPD  | 0.32 TPD  |  | 5th Semi-Annual Reort (Appd. E)<br><a href="http://www.aacog.com/cap/2biannual/062505_5thSemiAnnual-Final_Jun30-05.pdf">http://www.aacog.com/cap/2biannual/062505_5thSemiAnnual-Final_Jun30-05.pdf</a>  |
| Transportation Demand Management (TDM) (rideshare, telecommuting, flex time, compressed workweek & staggered hours)   | This is a local non-enforceable voluntary measure aimed at reducing emissions by lowering the number of SOVs and the volume of vehicles during peak hours<br><b>SIP docket ID: R06-OAR-2005-TX-0010-0005 (pg 5.5)</b>  | Reductions estimated through 2002 survey conducted by AACOG. Not modeled in attainment demonstration.  | by Dec. 2005   | 0.03 TPD - Estimate Not Modeled                   | 0.026 TPD - Estimate Not Modeled                |  |   |
| Alternative Fuel Vehicles   | Un-modeled measures with no SIP credit. AFVs offer reduced emissions through cleaner burning fuels or electricity. The San Antonio EAC did not receive SIP credit for emission reductions in this category.<br><b>SIP docket ID: R06-OAR-2005-TX-0010-0005 (pg 5.6)</b>  | Voluntary measure with no SIP credit. Currently implemented on a voluntary basis.  | On-going   | 62 lb/day - Estimate Not Modeled                  | 689 lb/day - Estimate Not Modeled               |  |   |
| Lawnmower Recycling Program (rebate program) replacing gas-powered lawn equipment with electric   | Un-modeled measures with no SIP credit; Gasoline-powered lawnmowers contribute a significant amount of NO, VOCs, and PM to the atmosphere. A lawnmower "buy back" program was initiated in 1998 to encourage the replacement of gas-powered mowers with electric. The San Antonio EAC did not receive SIP credit for emission reductions in this category.<br><b>SIP docket ID: R06-OAR-2005-TX-0010-0005 (pg 5.6)</b> | Voluntary measure with no SIP credit. Currently implemented on a voluntary basis.  | by Dec. 2005   | 114.24 lb/ozone season day - Estimate Not Modeled | 4.78 lb/ozone season day - Estimate Not Modeled |  |   |
| Texas Emission Reduction Program (TERP)--provides financial incentives to repower, retrofit or replace on & nonroad diesel engines with cleaner equipment                                     | The goals for TERP as set forth in SB5 are to provide financial incentives to repower, retrofit or replace on and nonroad diesel engines with cleaner equipment; the program promises a 2 tpd NOx reduction from modifications in the EAC region.  | Measure is in effect; the 2 tpd reductions will be met with the FY '02-'04, FY2005 1st round, and FY2005 2nd round projects selected by the TCEQ.  | by Dec. 31, 2005   | 0 TPD   | 2 TPD   | TCEQ committed funding from TERP for 2.5 tpd of NOx reductions;& 2 tpd committed by EAC signatories. | FY 2002-2004 projects are listed by company on the TCEQ website:<br><a href="http://www.tceq.state.tx.us/assets/public/implementation/air/terp/eng/area_listing.xls">http://www.tceq.state.tx.us/assets/public/implementation/air/terp/eng/area_listing.xls</a><br>FY 2005 1st round list by company:<br><a href="http://www.tceq.state.tx.us/assets/public/implementation/air/terp/eng/2005_1st_round_selections_area.xls">http://www.tceq.state.tx.us/assets/public/implementation/air/terp/eng/2005_1st_round_selections_area.xls</a><br>FY 2005 2nd round list by company:<br><a href="http://www.tceq.state.tx.us/assets/public/implementation/air/terp/eng/FY05R2_recommended_grants_es.xls">http://www.tceq.state.tx.us/assets/public/implementation/air/terp/eng/FY05R2_recommended_grants_es.xls</a> |
| Portable Fuel Container Rule  | State Rule establishes design criteria for "no-spill" portable fuel containers based in large part on the CARB standards. Effective December 31, 2005, these new rules will limit the type of portable fuel containers and portable fuel container spouts sold, offered for sale, manufactured, and/or distributed in Texas.<br><b>SIP docket ID: R06-OAR-2005-TX-0010-0005 (pg 5.8)</b>                               | Rule is currently in affect. All affected persons in all counties within the State of Texas shall be in compliance with the provisions of this division as soon as practicable, but no later than December 31, 2005.   | by Dec. 31, 2005   | 45 %  |   |  | <a href="http://info.sos.state.tx.us/pls/pub/readtac\$ext.TacPage?sl=R&amp;app=9&amp;p_dir=&amp;p_rloc=&amp;p_tloc=&amp;p_ploc=&amp;pg=1&amp;p_tac=&amp;ti=30&amp;pt=1&amp;ch=115&amp;rl=629">http://info.sos.state.tx.us/pls/pub/readtac\$ext.TacPage?sl=R&amp;app=9&amp;p_dir=&amp;p_rloc=&amp;p_tloc=&amp;p_ploc=&amp;pg=1&amp;p_tac=&amp;ti=30&amp;pt=1&amp;ch=115&amp;rl=629</a>   |

| A.<br>Control Measure  | B.<br>Summary Description of Measure   | C.<br>Program/Measure Status  | D.<br>Specific<br>Implementation Date | E.<br>VOC<br>Reduction | F.<br>NOx<br>Reduction | G.<br>Resources<br>(FTE's, \$\$) | H.<br>Additional Information  |
|--|--|---|---------------------------------------|------------------------|------------------------|----------------------------------|---|
| Truck Stop Anti-idling program, with service for 53 parking spaces. Removes 100% of emissions assoc w/ diesel idling, including NOx and VOCs   | The idling restrictions will lower NOx emissions from both gasoline powered and diesel-powered motor vehicles in the affected areas.   |   | by Dec. 31, 2005                      |                        |                        |                                  | IdleAire website<br><a href="http://www.idleaire.com/locations/IA_ATE_active/">http://www.idleaire.com/locations/IA_ATE_active/</a>   |
| Windshield Wiper Fluid   | EPA calculated VOC reductions from this national consumer products rule to be 20 percent and allowed states to take this emission reduction credit in their SIPs. Prior to EPA's issuance of its national rule, Texas adopted a consumer products rule that limits automotive windshield washer fluid to 23.5 weight-percent VOC. Due to the more stringent Texas formulation, Texas takes credit for the difference. This measure was not modeled.<br><b>SIP docket ID: R06-OAR-2005-TX-0010-0005 (pg 5.10)</b> | Rule is currently in effect   | by Dec. 31, 2005                      |                        |                        |                                  | <a href="http://info.sos.state.tx.us/pls/pub/readtac\$ext.ViewTAC?tac_view=5&amp;ti=30&amp;pt=1&amp;ch=115&amp;sch=G&amp;div=1&amp;rl=Y">http://info.sos.state.tx.us/pls/pub/readtac\$ext.ViewTAC?tac_view=5&amp;ti=30&amp;pt=1&amp;ch=115&amp;sch=G&amp;div=1&amp;rl=Y</a> |
| Public education program--main goal is to familiarize the public with actions they can take to improve the air quality   | Familiarizes the public with actions they can take to improve the air quality<br>This category includes:<br>Air Quality Health Alert program, media (TV, radio, internet, & newspaper), news events, community events, presentations for schools and businesses, & informational materials distributed through various programs (Clean Cities, ACAP, Adopt-a-School Bus, Commute Solutions, etc.)<br><b>SIP docket ID: R06-OAR-2005-TX-0010-0005 (pg 5.10)</b>   | No attempt has been made to quantify the air quality impacts of these public outreach projects, however this program adds additional assurance that the SAER will achieve the goals of the EAC program. | by Dec. 31, 2005                      |                        |                        |                                  | Web pages for public viewing, materials for distribution, targeted audiences, distribution numbers, events, media spots, and business participation are listed in appendix B of the 6th Semi-Annual report for San Antonio.   |
| <b>Comments:</b> Within the public education program, the Adopt-a-School Bus program is projected to replace 275 older buses over the next three years, reducing emissions of NOx by 110 tpd. A projected replacement of 275 school buses for the San Antonio area over the course of three school fiscal years could realize a reduction of approximately 110 tons/year of NOx. There could be a combination of replacement and retrofitting of buses to achieve NOx and PM reductions, depending on technology available and the availability of low-sulfur fuel. SIP docket ID: R06-OAR-2005-TX-0010-0016 |  |   |                                       |                        |                        |                                  |   |

| Gridded Emissions Sources                             |                                  |                       |   |   |           |           |
|---|----------------------------------|-----------------------|---|---|-----------|-----------|
| Emission Inventory Category                           | Geo-coded in Photochemical Model | Geo-Coded in TransCAD | Surrogate Factor                                      | Source of Surrogate Factor  | Completed | Geo-Coded |
| <b>Airport and Military</b>                           |                                  |                       |   |   |           |           |
| Military Bases  |                                  | X                     | Military Base locations                               |   |           |           |
| San Antonio International airport - Ground emissions  |                                  | X                     | Location of SAIA                                      | -   | X         | X         |
| San Antonio International airport - Elevated Aircraft |                                  | X                     | At equal dist. from SAIA (horizontal and vertical)    | Information on runway patterns of specific aircraft traffic was from the San Antonio Department of Aviation   | X         | X         |
| Small Airports  |                                  | X                     | Small Airport Locations                               | TransCAD GIS cover and aerial images.   | X         | X         |
| <b>Area</b>   |                                  |                       |   |   |           |           |
| Agricultural Fertilizer                               |                                  | X                     | Crop Production by Type for each 4 km grid            |   | X         |           |
| Agricultural Pesticide Application                    |                                  | X                     | Crop Production by Type for each 4 km grid            |   | X         |           |
| Architectural Surface Coating                         | X                                |                       | Population  |   |           |           |
| Asphalt Paving  |                                  | X                     |   |   |           |           |
| Asphalt Roofing                                       | X                                |                       | Population  |   | X         | X         |
| Auto Body Refinishing                                 |                                  | X                     | Auto Body Shop Employment                             | Texas Workforce Commission, 2005, Employment Data for 3rd quarter 2004. Austin, Texas.  | X         | X         |
| Bakeries  |                                  | X                     | Bakeries and Grocery Store Employment                 | Texas Workforce Commission, 2005, Employment Data for 3rd quarter 2004. Austin, Texas.  | X         | X         |
| Breweries   |                                  | X                     | Breweries Location                                    | Texas Workforce Commission, 2005, Employment Data for 3rd quarter 2004. Austin, Texas.  |           |           |
| Consumer and Commercial Solvents                      | X                                |                       | Population  |   |           |           |
| Catastrophic - Accidental Releases                    |                                  |                       |   |   |           |           |
| Commercial Cooking                                    |                                  |                       |   |   |           |           |
| Degreasing  |                                  | X                     | Employment  | Texas Workforce Commission, 2005, Employment Data for 3rd quarter 2004. Austin, Texas.  |           |           |
| Diesel Truck Idling                                   |                                  | X                     | Location of Truck Stops, Rest Stops, and Picnic Areas | Texas official travel map and aerial images.  | X         | X         |
| Dry Cleaners  |                                  | X                     | Dry Cleaners Employment                               | Texas Workforce Commission, 2005, Employment Data for 3rd quarter 2004. Austin, Texas.  |           |           |
| Fires   | X                                |                       |   |   | X         |           |
| Gas Cans  | X                                |                       | Population  |   | X         | X         |
| Gasoline Distribution                                 |                                  | X                     | Gas Station Locations                                 | Texas Workforce Commission, 2005, Employment Data for 3rd quarter 2004. Austin, Texas.  | X         | X         |
| Generators  | X                                |                       | Employment  |   | X         | X         |
| Graphic Arts  |                                  | X                     | Graphic Arts Employment                               | Texas Workforce Commission, 2005, Employment Data for 3rd quarter 2004. Austin, Texas.  | X         | X         |
| Livestock and Poultry Feed Operations                 |                                  |                       |   |   |           |           |
| Municipal Waste Landfills                             |                                  | X                     | Landfill Locations                                    | Aerial Photography and Alamo Area Council of Governments, 2003. "Closed Landfill Inventory", San Antonio, Tx. Available online: <a href="http://www.aacog.com/cli/default.htm">http://www.aacog.com/cli/default.htm</a> | X         | X         |
| Municipal Waste Treatment                             |                                  | X                     | Waste Water Facilities                                | Environmental Protection Agency, May 21, 2006. "Facility Registry System (FRS)", Available online: <a href="http://www.epa.gov/enviro/html/fri/index.html">http://www.epa.gov/enviro/html/fri/index.html</a>            | X         | X         |
| Oil and Gas Wells                                     |                                  | X                     | Oil and Gas Wells                                     | Texas Railroad Commission, September 2005. Digital Map Information. Austin, Texas.  | X         | X         |
| Paving Markings                                       |                                  |                       |   |   |           |           |
| Gasoline Pipelines                                    | X                                |                       |   |   | X         | X         |
| Small Stationary Fossil Fuel Use                      | X                                |                       | Population and Employment                             |   |           |           |
| Surface Coating                                       |                                  | X                     | Surface Coating Employment                            | Texas Workforce Commission, 2005, Employment Data for 3rd quarter 2004. Austin, Texas.  | X         | X         |



| Gridded Emissions Sources                |                                  |                       |  |   |           |           |
|--|----------------------------------|-----------------------|--|---|-----------|-----------|
| Emission Inventory Category              | Geo-coded in Photochemical Model | Geo-Coded in TransCAD | Surrogate Factor   | Source of Surrogate Factor  | Completed | Geo-Coded |
| Area (continued)                         |                                  |                       |  |   |           |           |
| Underground Storage Tanks                |                                  | X                     | Underground Storage Tanks Locations                          | Texas Commission on Environmental Quality, November 2005. "UST and AST Database files". Austin, TX.   | X         | X         |
| Above Ground Storage Tanks               |                                  | X                     | Above ground Storage Tanks Locations                         | Texas Commission on Environmental Quality, November 2005. "UST and AST Database files". Austin, TX.   | X         | X         |
| Underground storage Tank Remediation     |                                  | X                     | Tanks that were removed from the ground                      | Texas Commission on Environmental Quality, November 2005. "UST and AST Database files". Austin, TX.   | X         | X         |
| Wineries                                 |                                  | X                     | Wineries locations   | Texas Workforce Commission, 2005, Employment Data for 3rd quarter 2004. Austin, Texas.  |           |           |
| Non-Road                                 |                                  |                       |  |   |           |           |
| Agricultural Equipment                   |                                  | X                     | Crop Production by Type for each 4 km grid                   |   |           |           |
| Boating                                  |                                  | X                     | Location of Accessible Lakes                                 | Acres were calculated using TransCAD or from the Texas Parks and Wildlife (last accessed June 1, 2005). Texas Lake Finder. Available on-line: <a href="http://www.tpwd.state.tx.us/fish/infish/regions/index.phtml">http://www.tpwd.state.tx.us/fish/infish/regions/index.phtml</a> | X         | X         |
| Commercial Equipment                     |                                  | X                     | Commercial Employment  | Texas Workforce Commission, 2005, Employment Data for 3rd quarter 2004. Austin, Texas.  |           |           |
| Construction Equipment                   |                                  | X                     | Utility and Road Construction, and Building Permits Location |   |           |           |
| Industrial Equipment                     |                                  | X                     | Industrial Employment  | Texas Workforce Commission, 2005, Employment Data for 3rd quarter 2004. Austin, Texas.  |           |           |
| Landfill Equipment                       |                                  | X                     | Landfill Locations   | Aerial Photography and Alamo Area Council of Governments, 2003. "Closed Landfill Inventory", San Antonio, Tx. Available online: <a href="http://www.aacog.com/cli/default.htm">http://www.aacog.com/cli/default.htm</a>   | X         | X         |
| Commercial Land and Garden Equipment     | X                                |                       | Population   |   | X         | X         |
| Golf Courses Land and Garden Equipment   |                                  | X                     | Golf Courses   | Aerial Photography, District Appraisal Data, and Telephone Survey   | X         | X         |
| Government Land and Garden Equipment     | X                                |                       | Government agencies boundaries                               |   | X         | X         |
| Residential Land and Garden Equipment    | X                                |                       | Population   |   | X         | X         |
| Public Schools Land and Garden Equipment |                                  | X                     | Public Schools Locations                                     | National Center for Education Statistics, 2002. Available online: <a href="http://nces.ed.gov/">http://nces.ed.gov/</a> (20 July 2004)  | X         | X         |
| University Land and Garden Equipment     |                                  | X                     | UniversityCampuses Locations                                 | -   | X         | X         |
| Mining Equipment                         |                                  | X                     | Mining Location  | -   | X         | X         |
| Quarry Equipment                         |                                  | X                     | Quarry Location  | U.S. Department of Labor: Mine Safety and Health Administration (MSHA), (last accessed June 9, 2005), MSHA's Data Retrieval System. Available online: " <a href="http://www.msha.gov/drs/drshome.htm">http://www.msha.gov/drs/drshome.htm</a>                                       | X         | X         |
| Railroad Locomotives                     |                                  | X                     | Railroad lines   |   |           |           |
| Railroad Maintenance Equipment           |                                  | X                     | Railroad Siddings  |   | X         |           |
| Recreational Equipment                   | X                                |                       |  |   | X         | X         |
| On-Road                                  |                                  |                       |  |   |           |           |
| On-Road Emissions                        |                                  | X                     | Link Base Network Volumes                                    |   |           |           |
| Point                                    |                                  |                       |  |   |           |           |
| Electric Generating Units                | Geo-coded by TCEQ                |                       |  |   |           |           |
| Non-Electric Generating Units            | Geo-coded by TCEQ                |                       |  |   |           |           |
| Minor Point Sources                      | Geo-coded by TCEQ                |                       |  |   |           |           |
| Biogenic                                 |                                  |                       |  |   |           |           |
| Biogenic Emissions                       | Geo-coded by TCEQ                |                       |  |   | X         | X         |